



Spectrum computing today



PRICE LIST (prices checked 30 March 2003)



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MB02-Printerlead	13,00 €
Spectrum +2A, new and original package, complete	219,00 €
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Proface AT Intern (internal interface)	62,00 € KS
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+2 Cassette recorder	36,00 €
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PSU for +2A/B and +3 or PSUI for +2 (also 48k and 128k) Please specify	29,00 €
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Multiface 128 (works also on 48k Spectrums	26,00 €
Multiface +3	46,00 €
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Normal Tapelead	3,00 €
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VGA-BOX (connect Spectrum 128/+2 to VGA monitor)	49,00 €

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Sinclair ZX Spectrum +2, complete with all cables	79,00 €
Sinclair ZX Spectrum +2A, complete with all cables	79,00 €
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Sinclair Spectrum 48k (Gummy), complete with all cables + Introduction Tape	64,00 €
Sinclair Spectrum 48k +, complete with all cables + Introduction Tape	64,00 €
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Sinclair SJS-Joystick (+2/+3)	6,00 €

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If you enjoy ZXF and you want it to continue then consider yourself duty bound to let me know this (mail@cwoodcock.co.uk or by the feedback form). All other feedback will be gratefully received too.

ZXF now has a voluntary purchase scheme. If you have downloaded and enjoyed an issue of ZXF, and if you are able to afford to, please consider paying £1 for your issue via the Paypal button on at the ZXF website ('magazine' page).

If you would like to contribute to future issues of ZXF - even if it's just to write a letter - **please do**; contact me again by the email address above.

Editor: Colin Woodcock (mail@cwoodcock.co.uk)

Website: www.zxf.cjb.net

Contributors this issue: Kevin Bennet, Matthew Harrodine, Paul E. Collins, Tarquin Mills, Robert Hazelby, The Oliver Twins, Graham Shaw, John King and Thomas Eberle. A big thankyou also to all letter writers.

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At the annual Micro Mart Computer Fair a couple of weeks ago I was struck by two distinct sorts of reaction of the passers by to our humble little corner of the 'Retro Zone' area. Squeezed in between at least four reincarnations of the Sinclair QL and a single SAM Coupé banging out enough decibels that a serious case of tinnitus could have been in the offering with enough exposure (and fair play to Colin Piggot for that - the Quazar is a seriously impressive piece of kit), my single Spectrum+, with it's burps and beeps amplified just enough to be audible above whatever Pet Shop Boys track it was that was playing, didn't seem likely to attract much attention. But it did.

The first sort of reaction was I suppose what you could call 'the recognition reflex.' Smiles. Recollections. A number of

people just couldn't resist reaching out to press a few keys, to make tactile contact with a memory long smothered by glossy hardware that doesn't hang around enough to get properly acquainted anymore. These were shoppers passing, in the main, grown-ups out for a PC bargain suddenly caught in an unexpected moment of nostalgia. And it was lovely to watch.

The second sort of reaction was that of some of the kids that were wandering around. A great deal of curiosity in some cases (I had to intervene at one point to prevent one lad from investigating the pulling out of the Kempston Interface! It wasn't quite the slow-motion rugby tackle, but I expect you can imagine the urgency); more to the point, a great deal of interest for simply playing on the thing. These were children who had no idea of the significance of the little black box in front of them,

and there were plenty of other platforms around, with much flashier graphics and sound; yet the simple Spectrum still appealed.

I've been wondering what to make of that ever since. In one sense, I suppose, we could ask why *wouldn't* they enjoy such a well-crafted game as R-Type? These sorts of comments, after all, are in plentiful supply in all of the various retro discussion forums around the net, as the 'what's wrong with games today' topic gets dusted down for it's nth airing of the month. Are retro platforms simply a novelty supplement to a hard-core modern gaming diet, or do they offer more?

Not so long ago I was a primary school teacher. I say not so long ago, but it was still before the time of the ubiquitous 'PC Suite'. I'm not a particular fan of PC Suites, but if I was still a teacher and I had to make use of them, a Spectrum programming club would have been an inevitability. Imagine that - a room full of emulated Spectrums and children learning to program them. I don't doubt that 'the industry' wouldn't see much future in that, but sometimes I wonder if 'the industry' actually understands children's entire needs, rather than just the ones that involve money.

I'm interested in knowing your experiences with kids and Spectrums, and what better time to try them out than Christmas: let's theme next issue's letters page.

In the meantime, please enjoy our packed Christmas issue. ZXF07 will be appearing somewhere in April.

Colin Woodcock





SINCLAIR DISCUSSED

>TV and Radio retrospective

Well done to Andy Kavanagh for a sterling piece of ZX PR in September. BBC East brought Andy in as a Spectrum spokesperson for both a short TV feature on Sir Clive Sinclair and a follow-up, phone-in radio discussion.

The mini-documentary, shown on BBC1 in the eastern counties as part of the nightly 'Look East' news programme and presented by ex Tommorrow's

World presenter **Maggie Philbin**, featured information on the **C5**, the **Executive** calculator, the **TV80** and, of course, the ZX range of computers. Mr Kavanagh, known by the way to **comp.sys.sinclair** regulars as

dekay, treated viewers to a brief introduction to Spectrum emulation, discussed **Football Manager**, the missing gameplay in the current games market and all but named **chunkey** in a mention of the effect mothers had on games loading in when they walked into your bedroom (he later claimed in CSS that he did actually use the term, but the harsh BBC censors cut it out - the blighters).

Ms Philbin concluded the film with a surprisingly passionate call for Sinclair to be taken more seriously:

"Personally, I think it's a tragedy that a man like Sinclair is now remembered for his failure and is derided as a figure of fun by people who don't possess an ounce of his creativity or vision." Put her in a glass case and throw sugar at her - that's what I say. And how did the radio presenters hosting the subsequent phone-in show follow these rousing words? "I remember getting the Sinclair spectrum - the ZX Spectrum - and it was £200. And if you look at the graphics - they were rubbish!"



Lucky, then, that Andy came back to put the record straight on the issue of cost, as well as going on to discuss **CSS**, the **Specy Tour** and even the **Crap Games Competition**.

The radio programme also featured a call from 'Peter', an otherwise anonymous Sinclair Radionics quality assurance engineer around in the time of watches and calculators. Telling the presenters that he supposed he should be hanging his head in

shame, Peter talked about the well known quality control issues (ie, lack of) at Sinclair. "Demand was always exceeding supply," he explained, "there was never enough stuff that was actually at the required quality to go around. Production was always screaming because there were shortages - left right and centre - so stuff got used just simply to fill orders sometimes - that everyone knew shouldn't be used - but let's deal with the problem when it comes back." The problem was, he added, that Sinclair was "so enthusiastic about these new products that he would talk to the press about them long before they were actually ready for launch. And the result was that the final stages of design, development and production engineering were always done in a panic."

Sinclair C6, anyone?

FURTHER PRESERVATION

>Type-Ins project starts at WOS

It's full steam ahead at **www.worldofspectrum.org** for yet another new project: an archive of all the magazine and book type-in listings ever published. This ambitious project, typical of the sort of scope that WoS has envisioned from the start, is to be overseen by WoS Forums regular **Arjun Nair**, and already there are a good number of titles in place.

Available from a new subsection of the Archive page, the type-ins are listed in the usual WoS format, including online play through Java emulator, **ZZ Spectrum**. So work off that turkey dinner and get typing!



ORSAM 2003

>Kevin Bennet reports on his visit to the Norwich Spectrum and SAM show held on November 1st; Tarquin Mills tells us what it was like to organise it.

It has been ten years since I attended a Spectrum show. :o#

Woow an enthusiast not! you might think? Millions of people have PCs and use them quite happily without expressing any interest. Many turn out to shows based on weight of numbers in the market place. There are many users of SAM and Spectrum who don't or just hadn't thought of showing that additional interest.

The interesting activities and current developments could attract many once they realise what they have. Perhaps many put the old machines away when the press and marketing peoples told them of the PC PC PC.... Wooooowww spank meeeeeeee [Hehhehee can't be helped]

www.quazar.clara.net/sam

SAM music enthusiasts would be impressed with the **Quazar** stand attended by a friendly and (of course) enthusiastic Colin Piggot. The traditional C64 SID music chip was shown adapted to run on the SAM. This was heard playing around the hall with a '... don't I know that piece of music?' An impressive use of 8-bit hardware that will always have its place of interest due to the inherent character of the architecture and programming characteristics.

Also as pictured I had a guts view of the Sam in a Can. A silver minimised SAM with attached keyboard and devices. It will be interesting to see what support is built that will create an environment of interest and development. An impressive development was the tiny harddrive that in fact was one of the media cards found often in

use with digital cameras. As users move past cassette tape and floppy disk on 8 bit machines due to volume of media this is an exciting development. If Quazar are not in your dungeon of pleasure for all their efforts then they might win you over with their SAM revival magazine, professionally produced in the traditional A5 format.

www.cronosoft.co.uk

My attentions (as seduced me showards) was Simon of **Cronosoft**. Cronosoft had a stand with their current selection of titles that are quite impressively produced Sinclair Cassette tapes. The teaser on offer was a new Jonathan Cauldwell title named **Rough Justice** their unknown released at the show. The immediate impact of this game is such that for days I could not remember its name. A Spectrum 128K +2A ran the game with impressive AY music and programming techniques.

Cronosoft is becoming an interesting collaboration of artists (inlay design/production & loading screen artwork), programmers (code & graphics) and musicians, with people like myself making a contribution. I spoke to Jonathon Cauldwell and of course made a rightly grovelling gesture as his prowess is known from the days of legend and Your Sinclair.

Jonathan Cauldwell

.... An excellent, modest man. I as good as talked up a fist fight when I enquired whether **Amusement Park 4000** was 16K out of Sloth and laziness. Perhaps it's the challenge of 16K. He was quite happy to discuss his work and had come to the show to have a look. Rough

Justice took approximately 3 months to complete working on and off, with 151 Spectrum randomly generated screens that Jonathon then edited. He also spoke enthusiastically about his musician... a man with an unpronounceable name (perhaps the mystique of the unpronounceable artist?) The theme to Rough Justice is 9K of code, superbly implemented AY music.

Jonathan Cauldwell is more a game player's programmer than a techie. His work is on smaller projects in well-worked environments with unique code traits such as animation smoothness and integrity of weight and motion. There is more to come from Jonathon Cauldwell and Cronosoft's work in progress.

More Tea Vicar should be something interesting. Jonathan Cauldwell also won Second prize in the **MiniGame** competition with Amusement Park 4000. (www.ffd2.com/minigame)

www.retrogamez.co.uk

Also at the show was a selection to front the increasing development of this web page of old machines and software.

Nev Young

The madness of Dr. Jekyll and Mr. Reporter came to the chemical imbalance of awareness whilst talking to Nev Young. Nev was involved in debugging the SAM ROM, he wrote the acceptance test and UNI-DOS for Disciple. I had been trying to get hold of some of these ROMs for years. Nev has my email address, perhaps anyone who needs a replacement or upgrade may have an

opportunity.

I asked for the dirt... he give me the real fifth. He admitted to sleeping in the same house as **Bruce Gordon** (of Miles Gordon Technologies) in Swansea... a man with a leaky shower! If there was an award for quote of the show it would have to go to Nev for the ...

"I came here today because I live around the corner."

Simon Goodwin

Simon Goodwin of various Sinclair Magazines fame (and the talk I completely missed) was displaying a debowled Sam Coupe that looked worked over out of love... and likely craziness. He was displaying a SAM variant, a Spectrum emulation upgrade and a SAM emulation CD. This was a love for the numbers kind of project. I just don't have that kind of brain damage. :o) The German contingent of all the shows was **Wolfgang** - he did have that kind of damage and seemed well impressed. It was a pleasure to meet a man of personal charm from Germany. I had the thought that it would be no displeasure meeting him again.

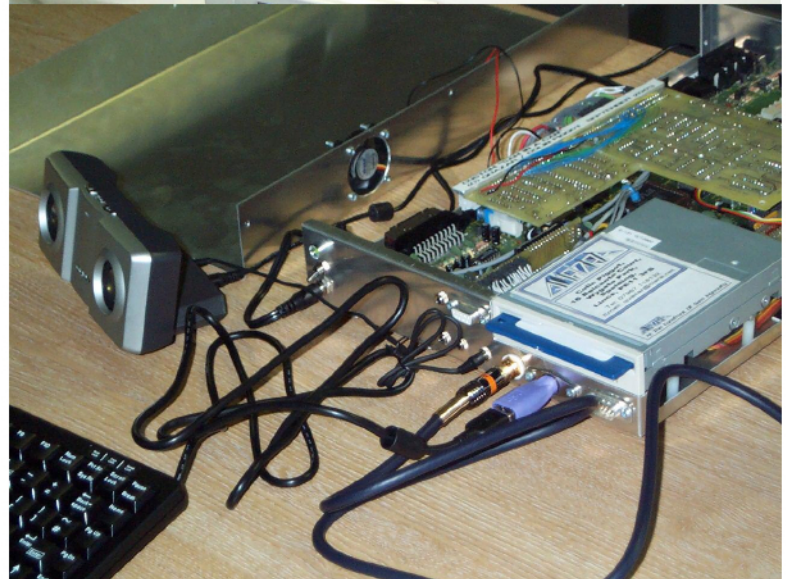
<http://website.lineone.net/~alchemistresearch/wnr/>

WNR Richardson was giving away surplus stock that included games and joysticks and numerous other Sinclair items. An interesting man that I found a pleasure to meet at the show. WNR Richardson sells Sinclair Z88's, QL's and other peripherals.

www.ntk.net

This forum had T-shirts available through <http://www.ntkmart.com> as advertised on a business card. An impressive stand of T-shirts and self advertising.

A show that will lead to other things due to the positive nature of the event. I would like to thank everyone involved including the tea making lady and Tarquin Mills the show organiser.





Hello, my name is Tarquin Mills, and I run ACCUS (Anglia Classic Computer Users Society) which in theory covers all non-Wintel computers, but in practice mainly covers the Sinclair QL as this is what members are interested in. This is a view of ORSAM 2003 from an organisers perspective only as I cannot guess the view from a visitor's eyes and am biased, perhaps it will help other potential organisers.

For a few years I have been thinking of organizing a Do Different Computer Show or a Quanta Workshop in Norwich. "Do Different" is UEA's (University of East Anglia) motto, this show would include all non-Wintel platforms. As there are so few QL users in our area I proposed merging the two shows together into one. In April this year the idea was put to the QL-users mailing list that includes QL traders and a lot of prominent QL users. They were afraid of being swamped by other platforms. As my favourite computer is the Sinclair ZX Spectrum, and Z88 are seen as a portable companion to the QL, I changed the proposal to a Sinclair and Compatibles/Clones Show. This time I was told QL users would not turn up and instead would wait for a QL only event in East Anglia (which would not happen). So a Quanta workshop was arranged for March 2003 and a separate Spectrum and SAM Coupé show for the first day in November. Other Sinclair platforms were left out in the cold.

It did not happen quite as easily as this. I had been waiting sometime for an Oric meeting in this country, but nothing had happened. Thanks to illness I had missed the nearest thing to an Oric meeting, the retro section of the MicroMart show at Birmingham's NEC. So I offered to hold a meeting in Norwich on the newsgroup comp.sys.oric. They thanked me for my kind offer, but very few

replied and most would be unable to attend. The idea was put on the back burner. Undaunted the next course of action was to contact the SAM Coupé mailing list and give them the same offer in the rather cheeky email titled "East Coast Takeover". There was another reason for this title I will go into later. The offer was a Spectrum and SAM show like NSSS and the Quedgley, Gloucester show but balanced. The reaction was positive with several people saying they would come, one person even arranged to get a lift with another. On the back of this I arranged a date for the first Saturday in November (the 1st as it happens), to give paper based magazines time to print details of the event.

Thanks to running RUNG (RISC OS Users Norfolk Group) I have some knowledge of halls bookable in my part of Norwich. Church halls are not available all day Sunday and are used on Saturday, while some of the halls were clearly too small for a show (even a small one). In the road I live on there is Scout hut, it is hidden behind the houses on the opposite side of the street and is accessed by an alleyway, you would never know the hut was there. In past attempts to book the hall for computer meetings had failed because the old man who ran it was too worried about heating costs. Fortunately things had changed, the new person running it, Mr Clemo, was willing to book the whole hut and 40 space car park for 45 pounds. As well as that he was undertaking a 5 figure refurbishment program on the hut, now renamed the Alec Bussey Scout Centre, because it does not have a scout group anymore. This included underpinning (subsidence is a common problem in Norwich), carpet in side rooms, new signs and improved floor in the main hall. When viewing it we could only guess how it would look

at the time of the show. However one problem already surfaced, there are no power sockets in the main hall for safety reasons i.e. to stop scouts sticking things in the socket and getting electrocuted.

Picking a very local venue was useful, as if we need anything it could be got from home quickly. As scouts had not yet got planning permission for a sign at the alleyway entrance, a big ORSAM sign would be needed. After a problem with a company who want to make a sign no questions asked, then changed their mind. We got one made professionally saying just "Computer Show", the colours are to match the Spectrum. For cost reasons the part that says anything specific to this show is a replaceable addon, this means we can use the sign with different shows.

I contacted every trader, magazine I could find mentioned in fanzines, websites, I put adverts on forums, websites, the Usenet, mailing lists. This continued right up to the Friday night before the show, at this point I would like to thank the people who suggested who to contact. One problem to emerge was Spectrum users in the UK, German spectrum magazines had mentioned us, as had SAM Revival, but Alch News did not reply to my email or letter. Alch News is important as they have 600+ subscribers, but the problem was that Andy Davis had moved to Bolton and Alch News has stopped coming out temporarily. I am not exactly sure what has happened at PD Power (who owe me money). ZX Format had just produced a magazine and the next would not be out until after the show, they did promise to cover the show. I also sent press releases to the local media, Amstrad and Sinclair Research. Amstrad rent spectrum games 10,000 times a week at 50p for 3 days to Em@iler Plus users. This

shows the Spectrum is still alive, but we still have found no way to tap these and lots of other Spectrum users. While CSS was informed it must be remembered that half the population does not have internet access at home. On the plus side there are several well know Spectrum and SAM users in Norwich (we are not completely dead), if they did not want to come it probably showed we were in real trouble.

Colin Piggot's Quazar, Cronosoft, and W.N. Richardson agreed to go as traders, while Sintech said they would probably come. As both trader and visitors are short in supply at retro computer events neither are charged. The Scouts offered to do a barbecue and wanted numbers, as did other people. Not having run it before we had no figures to guide us, the attempted answer was to run a free prize draw with the winner getting a choice of a SAM game from Quazar or a sound add-on from Sintech. I know a man (Derek Williams) who runs very successful websites, one of his techniques is to keep his site constantly up to date, rather than having it out of date, or produce a website designed not to date (the technique I normally use). A famous website called NTK just mentioned us in passing, as an alternative to a C64 event (we can beat the C64 we are not just "Linda Barker and Manic Miner" (quote from CSS), even though these are good too), the hit count sawed. My key helper started to worry that hundreds of people would turn up. I did nothing to damp things down as I was still worried that turnout could be low, even if we were packed we could expand next year.

Then the ideas ran out, momentum stopped, the hit count hit the floor. On contacting Sintech with a week to go they said they could not come this year, the

question was, was there going to be a next year at this rate. We still had no speakers and asking Colin MacDonald to do the SAM talk lead to a thread started by him on the SAM mailing, asking people whether they were coming, lead to people saying they could not come. Fortunately things had already start to improve, NTK wanted to come and sell t-shirts and promised to give us a lot more coverage. As my best friend said it's in traders interest to promote the show. In a tough moment I decided to send an email to the mailing list pointing out that they had promised to come. A local councillor (Steve Land of the Green party, a rarity in this country) who I knew through my political career, agreed to open the show.

Finally the day of show came, getting up at 7.30am to put up the sign as Friday night was Halloween. That and fireworks nights stopped us getting any coverage in the local media. The main sign was not vandalised during the day, but the paper one in Grove Road was. It seems a family saw the Computer Show so entered, they must have found something of interest as they stayed several hours as did most people. We entered the hall, in which we had laid the tables out the day before, and we got the kitchen ready. Bang on 9am a taxi drew up with Colin Piggot in it and an off road vehicle carrying Cronosoft. Hardly had they started setting up when the first visitors arrived including one from Germany a full hour before the official opening.

Quazar produced a neat display of their hardware, and borrowed a Philips RGB Scart monitor of mine, they could not take one on the train. The hardware included a compact flash interface that I am using on a Q60, CF adapters were evident on many SAMs during the

course of the day. The traders got power from double sockets in rooms adjoining the main hall. Cronosoft chose the table to the right of Quazar using one table for their crates of old cheap games and a table with 2 Spectrums (a +2, and +2A). On these you could play their games including Rough Justice released for the show, cool. See the review for more details. I was looking for 2 player games and bought the classic Bubble Bobble, which brings back memories. With costs escalating I didn't buy as much as I should at all the stall, however I will buy more next year and get some things via mail order that slipped the net. Being a trader at show bring indirect sales, such as a USA user buying SAM Coupés from Quazar.

Everyone, traders included, were shuffled out so that the councillor could cut the green ribbon, he was surprised to find the venue hidden right in the city. He was then shown round including a demonstration of the Quazar Surround Sound System running a pop video, a pity Quazar only had the 2 speakers. Can the size of the picture be increased while keeping the frame rate and sound up? ACCUS members Arnold Clarke and myself manned the stall near the entrance. We sold books donated by the Bramerton Computer Club and W.N. Richardson, and prize draw tickets. ACCUS could not give away my paper based RPG on retro computers as it was not ready for public consumption. The table however was dominated by the RiscPC that this and the game is being written on. It printed signs, and at Diana Mills suggestion, enlivened the hall to the sound of Darren Salts Manic Miner remake for RISC OS; until she demand it be stopped. I seem to remember my mother had the same problem in the 80s, though I am now much better at Manic Miner. The



computer played AY music from the two AYriders albums for most of the rest of the day.

A man walked into the hall with a ruck sack, the strange thing is that I recognised him from Linux Expo 2003 a few weeks ago. He was NTK. They had some t-shirts to sell, like 'Born to Run' and 'Ant Attack'. Then people arrived thick and fast. Bill Richardson who, fortunately for us, had been remind he was coming to the show by Simon Goodwin, arrived and set his stand selling Z88 and Spectrum books, with free bits of speccy hardware. This has several lessons, traders should be contacted to remind them to come and Z88 and ZX81 users exist and need to be catered for. It seems often in Norwich that when the show is mentioned people either said "I had a Spectrum... no actually it was a ZX81" or "SAM Coupé, never heard of that". Do not worry, we can help them see it's good features. Arnie (of ACCUS) said at a computer meeting on the Sunday, that he had never heard of the SAM before but was clearly interested in it, or was just fixing Nev Young free non-working Coupé motherboards in the bring and buy section that appealed to him, he went home a SAM owner.

Dave Ledbury arrived next with a SAM in a Can which I did not have enough time to see, in fact I did not have enough time for any stand, and was very busy all day with people wanted me in different parts of the centre at the same time. Kevin Bennett (hope that is spelled right) sold a complete SAM Coupé in it's original case to someone at bring and buy. Simon Goodwin of Zip, Crash and YS fame brought SAM p001 the first complete prototype of the SAM, in an upgraded condition. By this stage we were running out of tables, as well as power points.

At 1pm as no one wanted to do the Spectrum talk, I did a round table discussion based on the Spectrum and how it has moved on in last 21 years. I had cobbled this together, but it became in part the future of the ORSAM show. So there I was, stand nervously in front of about 15 people in the seminar room. The meeting decided we wanted former East Block Spectrums (Scorpion, GMX, Sprinter etc and Timex) here and in our homes next, the question was how to get these, as we are over here and they are over there and none of us speaks Russian. Another idea was an auction to appeal to ebayers, who did not want turn up as traders because they could not make money out of it. It was pointed out that the QL model of holidays with a bit of trading was a more realistic model, and going to shows is a good way of getting known in this country. Internet access for IRC, and Webcam for people who cannot make it to Norwich is another improvement for next year. An embarrassing moment happened when I tried to explain to the knowledgeable audience what attribute clash was. It was felt that the QL should join us next year instead of having their own show, to form a Sinclair show. One suggestion was to appease them by having a Spectrum village i.e. two shows sharing the same space. One person was heard to say "I will bring my Thor next time whatever I am told". Discussion continued in the canteen.

At 2.30pm Simon Goodwin gave his talk on fractals with the SAM, without hardware floating point. This was given in the main hall so that SAM p001 did not need to be moved, the talk was good. Then he took the computer apart to show a Jarek Atom IDE interface, cameras snapped away. During the day I asked knowledgeable SAM people who now owned the SAMs intellectual property, they guessed

why.

Just before the show closed, we had the prize draw. Colin officiated and drew the ticket number 16 as the winner, This was owned by Wolfgang Haller, however he had already gone. Earlier in the day he had been giving away free copies of SPC magazine. I commiserated with the losers and thanked people for coming and packed up. The feeling seems to be that people wanted to come again. In discussion since, someone has compared the attendance to the first NSSS. We need to improve on that, as a sharp cut would wipe us out. Hopefully we will get on the show calendar after this, our prices cream those on ebay. The show had a friendly atmosphere. The website needs a much shorter address, there needs to be an advert in the local papers. Next time ACCUS will have at least one working Spectrum on their stand. The demo crowd did not turn up, so a SAM and Spectrum demo competition will be arranged next year. Mr Clemo (of the Scouts) talked to us afterwards of more improvements he will make to the venue, such as more power sockets, see-through roofing in the main hall to let in light, better acoustics etc., I only hope he does not put up the price. One mistake we made was to telling people their prize draw ticket number in advance and starting at number 1. Another was not celebrating the 21 st anniversary of the Spectrum. I will put up some posters next year to make the place more colourful. Send me your suggestions for more improvements for next year. It was nice to be able to put faces to names. A big thank you to everyone who took part and helped, you made it possible, and I hope you enjoyed it.

ZXCF IN A BOX

>CF interfaces available to buy

Sami Vehmaa is a bit of a dark horse. Very, very quietly he's updated his DIY site (now at the new address, by the way, of <http://user.tninet.se/~vjz762w/>) to include a boxed version of his ZXCF interface reported on last issue. And it's for sale.



Not quite as stunning as the internal design shown in ZXF05, the ZXCF Boxed nonetheless features a full megabyte of memory as well as a CompactFlash slot; it will run on all Spectrums and costs about £90. For those of you to whom that's a bit steep or don't care about the box, there's also an 'electronics only' version consisting of a fully populated PCB lacking only an edge connector - £35 for a 512Kb version and £50 for a 1024Kb version. More details at Sami's site.

SID SPECTRUM

>C64 sounds by AY

So impressed by this was I that I played it at full volume at the Micro Mart Fair in November. **DigiSID** is a rather impressive demo containing nearly 15 minutes of simulated SID music using the Spectrum 128's AY chip. Written by **Poke**, the demo was first presented at the Zlincon 2003 party. It can be downloaded from <http://raww.org/filez/digisid.zip>. Make sure you type 'USR 0' in 128 BASIC (and Enter) before loading.

43 MINUTES AWAY

>New ZXIF title under development for release in 2004



With **Blink** now done and dusted (and available for purchase from the ZXF website (where you can also play it online for free, you know)) and with its very own **WoS** entry (which just has to be the coolest part of the whole thing), **ZXIF** - ZXF's very own software label - is now starting to develop its next adventure game for the 48k Spectrum.

In **43 Minutes** you are an injured CIA agent recovering in hospital following a plane crash, which is all well and good until you notice that time appears to be looping every - you guessed it - 43 minutes. The game is set in 60s America in the context of the Cold War.

If you have written an adventure game for the Spectrum and would like to see it published under the ZXIF label, please drop me a line at zxif@cwoodcock.co.uk.

MINIGAME RESULT

>Silver Joystick to Spectrum entry

This year's MiniGame competition is now complete, and the 2003 winner was... *minima Reloaded* for the C64. Jonathan Caldwell's *Amusement Part 4000* (see last issue) achieved a respectable second place, earning it the award of 'Silver Joystick.' There were 63 games submitted to the competition this year, of which 12 were Spectrum titles. Not bad at all. And if you fancy taking a look at a selection of Spectrum entries from this and previous years' competitions, Russell Marks has produced a rather clever compilation which loads no less than 29 Spectrum and ZX81 minigames into a single 128K load.

<http://rus.members.beeb.net/minicoll.html>

Meanwhile, work continues on the 16K remake of *Amusement Park*; character AI in this version is to be upgraded, with drunken behaviour and vandalism promised, amongst other things. Sophisticated or what?

RETRO GOES MAINSTREAM

>New magazine to hit newsagents

It's been the topic of discussions for ages: could there be a market for a dedicated retro computing magazine? Aside from Shaun Bebbington's excellent **Retro Mart** column every week in **Micro Mart** and the retro section in **Games-TM**, we have yet to see a magazine devoted in its entirety to old computing platforms that you can pick up from your local WHSmith. This might all be about to change. **Live Publishing**, publishers of magazines such as *PC Extreme* and *Playstation Gaming* are looking to launch a retro title somewhere in the new year. Currently planned as a quarterly publication, the as yet untitled magazine will be aimed at getting the mainstream back in touch with their computing roots and carry both nostalgia and current events articles. Keep your eyes peeled at www.livepublishing.co.uk.



GOSH! WONDERFUL!

>New ROM from Geoff Wearmouth

Geoff Wearmouth - the man behind the **Sea Change** ROM not so far in the distant past - has produced another alternative Spectrum ROM.

Unlike **Sea Change**, **Gosh Wonderful**, maintains compatibility with most Spectrum software, as well as the Sinclair Interfaces and ZX Printer. The new ROM's main features are a single key entry of tokens (ie, you can type the commands letter-by-letter rather than hunting around the keyboard for the blessed things) which you can turn off with the STOP command and a small number of suffixes to the REM command that give increased features:

REM delete <first> <last> will delete the block of BASIC defined by the line numbers;

REM renumber <first> <last> <step> will renumber the block defined;

REM streams will produce a list of active streams.

A straightforward ROM, then, and one which should come in handy for emulator-based BASIC programmers who can't be bothered with trying to remember where keywords are on the 48K Spectrum. Of course the ROM simply drops into emulators such as **SPIN** and **Spectaculator**.

www.wearmouth.demon.co.uk

DISCIPLE/+D INFORMATION

>Disassemblies online

An invaluable resource to those knowledgeable enough to use it, **Rudy Biesma** has published a website containing complete disassemblies for the MGT Disciple and +D interfaces. Providing exactly what it says on the can, the site can be found at www.amazed.nl/users/rudy/

WEBSITE UPDATES

>The Sinclair web evolves

Ever wondered where those magazine article listings at the bottom of a WoS archive page come from? The **SPOT*ON** index, that's where. This database of articles from the various Spectrum magazines received a substantial update from maintainer **Jim Grimwood** earlier this year, 'substantial' in this case meaning a whopping 6,000 new entries (as one CSSer pointed out, 'substantial' is a bit of an understatement). In addition to supplying WoS's Sinclair Infoseek search engine, the database can also be downloaded for offline use from Jim's site, which can be found at www.users.globalnet.co.uk/~jg27paw4/spot-on/default.htm

The database does not contain the articles themselves, of course, although it does contain links to the articles where they have been converted to html and published on the web (on, for example, the CRASH online site). Furthermore, WoS - which passed its eighth birthday in November - can cross-reference this information with its own bank of full page scans from **CRASH** and **Your Sinclair** (both magazines are now fully available at WoS, the YS pages having been completed on the day of its birthday). Which is amazing.

Planet Sinclair, the goldmine of information on all things Sinclair maintained by **Chris Owen** (www.nvg.ntnu.no/sinclair/), has also been significantly expanded to incorporate original Sinclair adverts, more detailed information on the Sinclair amplifier, hi-fi, radio and instrument products, and information on the new Sinclair Research products - the **Wheel-chair Drive Unit** reported on in issue 4 and the **SEA-DOO Seascooter**. Yes. Meanwhile, www.sinclair-research.co.uk itself has had a bit of a makeover

(although no information on the 'C6' to be found there yet...), and there is also now a dedicated WDU website to be found at www.wheelchairdriveunit.com

TURBO TZX

>New TZX conversion utility

Although these days TZX files are the format of choice for distribution, there's plenty still to be said for snapshot files. As a way of saving your place in a game, for example, they're invaluable. And there are still a fair few titles on Wos that are only available in this format too. The problem is, of course, that snapshot files are utterly useless when it comes to loading these programs into a real Speccy. To do this you need a way of converting snapshot files into a tape file.

Z802TZX by **Tomaz Kac** is just such a program; a command line utility, it takes Z80 snapshot files and turns them into TZX files ready to load into The Real Thing. And the added bonus is that it uses a turbo loading scheme that speeds data transfer up to an astonishing 6000 baud - that's over 400% of the usual tape loading speed. It works because the pure tones produced by your PC's soundcard are much easier to read than the noisy signals found on actual tape (if you want to record a title to tape and then load that into your Spectrum, a 3000 baud setting is recommended - still a fast speed, mind).

And boy do these files scream along when played back. Not all emulators are able to deal with the 6000 baud speed at the moment - **SPIN** and **Spectaculator** wanted nothing to do with these files, although 3000 baud was fine - however a real Spectrum connected to your PC should manage this speed fine.

A tiny 41K download, Z802TZX can

be downloaded from
<http://retrospec.sgn.net/users/tomcat/Z802TZxv10.zip>

An Amiga port is also available (converted by **xeron**) at:
www.pgordon.clara.net/z802tzx.lha

BRAINWAVE TALKING

>New scene zine

The demo group **Brainwave** are planning to bring out their own scene magazine. They describe it thus:

There will be new zx spectrum magazine. big magazine. purplepond (pp) include many information about world speccy scene, like south africa, brasil, poland, england, chezh, russia and many other!

it means interviews, info about speccy group, new software... PP include many parts. it include:

1. antique - about ascii scene on speccy;
2. crack zone - about speccy crack profession;
3. views (vip) - info and interviews about group;
4. music scene - about ay music;
5. party zone - more info about many speccy phestivales;
6. warez - about last warez;

zine completed about 50% procents. well, wait it about january-february of 2004 (this is max time)

Brainwave's website - still under construction as I write - will be at www.bwteam.org, so that is probably a good place to monitor.

ZX RESEARCH

>Online hardware survey

Jarek Adamski is a jolly clever chap. One only has to look back

at last issue's information on the YABUS.ZX for the evidence of that. Jarek now wants to consult with you, ZX user, on your needs so that he can expand his online work to suit them, which is rather nice of him, even if it does sound a bit like the British Labour party (but I'm sure he's far more accomodating than they are). If you feel obliging you can pop over to <http://nabla.yarek.com/zxq.php> where you'll be guided through the questions, one by one.

YET MORE NEW GAMES

>Cronosoft new releases

Cronosoft's Rough Justice, which was launched at the ORSAM show, gets a review in **load**; more

recently, however - too late for review, unfortunately - the all-new software label have released two further Spectrum titles: **Football Glory** by Graham Shaw (see also this issue's **int** section) and **zblast SD+** by Russell Marks. The latter is a four-in-one compilation of Russell's entries to the 1K and 4K **Minigames competition** (zblast SD+, Scrolly Stack, Dotathon 2 and Soliyawn) and is available as both a **free** download from www.cronosoft.co.uk and also a cassette version (for the 128K Spectrum) at the knock-down price of £1.50. Football Glory will set you back the usual price of £2.99 + p&p.

And it's not all ZX at Cronosoft. Recently there have also been releases for the C64 and the BBC!

AND ALL THE REST...

>Space running out.. much still to tell...

LCD has been working on an update to his extremely comprehensive graphics convertor BMP2SCR; this one will add in SAM Coupe graphics modes to the enormous array on offer. The place to watch is:

<http://members.inode.at/chmielewski.leszek/bmp2scr.htm>

There's a new graphics utility coming to town: the Spectrum Graphics Suite by Tony Thompson. Part of it is a tile editor called *Spectrum Tile Editor Utility*. Rolls off the tongue. Haven't had time to check it out yet myself, but it's now at www.geocities.com/aralbrec/tidbits/tidbits.htm until a more suitable home can be found for it.

Hungarian coders **Weird Science Software** are working on a new game with which to follow up their 2003 release **Flash Beer** (which I rather liked, but am still nowhere near to completing). Watch out for it at www.c-system.hu/edy/wss/

Ever heard of **The Italian ZX Spectrum clone project**? You have now. Only photos at the moment, but <http://aticatac.altervista.org/> might well place you in a trace-like state...

What would a Sinclair mobile look like? <http://b3ta.com/board/2304043>

There's what looks like a rather cool new PDF Retro mag online at www.merseyremakes.co.uk/retroactive/retroactive.htm. Only problem is that bandwidth for the site has been exceeded so it's been and gone (but will be returning). See how lucky we are to have **WOS**?

Only a few days left to go until the deadline for entries for the 2003 **comp.sys.sinclair Crap Games Competition**. This year's host, shady **Dave the Lurker** will be refusing any entries submitted after midnight on December 31st. A voting page will be appearing somewhen in January and you'll then have 28 days to register your vote.



Emulator news

RealSpectrum/RealX

Still no sign of RealX, then. Luca of the **Ramsoft** team did pop in to the forums at **WoS** to try to calm the building frustration aired by a few there. Apologizing for the continued delay, Luca explained that he and Stefano have less time to spend on the Next Big Thing In Spectrum Emulation than they used to, and that what time they have had has been spent mostly on updating existing projects (MakeTZX, CSW and RealSpectrum/RS32). RealX is in an advanced stage of development, but plenty of work remains for the GUI (which, you will recall from last issue, is the thing that's going to distinguish it from existing Windows emulators). Steady yourself for this one: *"At present, we honestly admit that we're not able to tell a reliable date for the release of RealX yet, it could be next month or January or whatever."*

Interestingly, Luca also used the opportunity to respond to some of the criticisms that have been aimed at Ramsoft over the last few years: *"we have often been attacked unilaterally on CSS and other places and accused of obscure conspiracies to conquer the world with RealSpectrum and other paranoid ravings for no reason, up to the point that for some people we became the public enemy nr.1 and everything we do is evil or has evil endings. [...] Since our first appearance on the scene (1997), we have never intended to compete against anything and anyone with our contributions, our only aim has been to do something possibly useful for all. In particular, RealSpectrum was never meant to steal the crown or "kill" any emulator, nor RealX will. We have never engaged a battle against anyone, we are not trying to be*

*the first of the class to impose anything to anyone, RealSpectrum and RealX are not weapons designed and deployed against *any* emulator. We are not interested in such competitions, thanks."*

In all fairness to Ramsoft, I myself have never read or heard of a single negative word that they have written against other Spectrum users/programmers/emulators; where the animosity has come from, I suspect, is through the pair's general silence in the Spectrum scene - in fact, this was Luca's first ever post at WoS forums (and he pointed out himself that he'd only heard about the thread discussing RealX through a friend): nothing fuels a conspiracy better than, well, nothing.

CSW, by the way, stands for Compressed Square Wave and is a file format created by Ramsoft as a more efficient way of storing cassette audio files than standard audio file (a CSW file is typically 10 - 20 times smaller than the corresponding VOC file). A new version of RealSpectrum (build 0.97.08 of 11/11/2003) now, I understand, supports this format directly.

www.ramsoft.bbk.org

HighSPEC

Here's an interesting new emulator from **Tom Walker** and **Richard Phipps**. HighSPEC is an emulator based on Tom's own **ZX82**, itself a new emulator in early development (currently at version 0.2 and available from <http://www.geocities.com/tommowalker/>). There's not much to say about it yet - it lacks any form of visible interface and only supports snapshot files at present; where HighSPEC distinguishes itself from other emulators straight

away, however, is in its 'smooth scaled resolutions'. This is one of those things that's much easier to appreciate looking at it than trying to write about it. The crux of it is that all graphics on display are smoothed out in a kind of FLASH graphics/TrueType font kind of way, making large magnifications of the Speccy screen much less blocky and more 'contemporary' in design terms (if you know what I mean). Unlikely to be a hit with the purists trying to recapture that Original Spectrum Experience, this is nonetheless an effect you have to have a look at, if only because it's something new (and we like new things, naturally). You can download it from Richard's site - www.shadecat.com - and judge for yourselves.

EmuZWin

EmuZWin is a new emulator by Vladimir KladoV - I say 'new,' however it was actually first released in April. Not quite sure how I missed this first time round, but now I've had a chance to catch up with version 2.2 I'm glad I've been able to make its acquaintance, all the same.

As its name suggests, this is a Windows emulator, a fairly simple emulator it first appears, since it offers only the Sinclair (by which I mean *Sinclair* Sinclair) 48K and 128K models, however it distinguishes itself straight away by providing **TR-DOS** support in addition to the usual cassette and snapshot file standards. It also has its own snapshot format - .EZS - which, I gather, adds in tape state information (ie, what cassette is loaded and where it is at the moment of snapshot) as well as something to do with POKes. There is a nifty little keyboard helper too - not quite as flash as **SPIN**'s original design, but pretty useful, all the same

Emulator news

Delve a little further and you find a rather well-implemented debugger and assembler. Not that I know all that much about such things, mind.

Version 2.3 is already in development (and could well be released by the time you read this) and will include fast and reliable multicolour effects support. One to watch, this. go to <http://bonanzas.rinet.ru/>

BASin

Not an emulator in the strictest sense of the word (we discussed this last issue), but increasingly BASin is becoming something of a killer ZX app. I like this program very much indeed.

Release 9a was released in early September, with the most visible update being the UDG (User Defined Graphics) editor mentioned last issue. Back then the option was greyed out on the tools menu, teasing us with its promise; well Paul Dunn has now delivered on this promise. And

he's delivered on it handsomely.

The UDG editor is a simply brilliant little applet. In it you can design your characters with an almost obscene ease: click the grid cells to toggle INK on and off, whilst buttons down the side of the main grid allow you to flip, rotate and invert in an instant. When you're finished, you can send the finished characters straight into BASIC as ready-typed DATA statements. You can, of course, also perform the inverse: take any BASIC program with UDGs defined within and - in a second - they're ripped and ready for editing.

The only way this fantastic utility could be expanded on usefully would be to include some sort of enlarged grid for designing larger sprites on (which could then be split into 8x8 cells and assigned to UDGs available). It's a tiny and insignificant request, because this really is about as close to perfect as it gets.

And BASin is now, without question, the best and the easiest

environment by far in which to develop a Spectrum BASIC program. Recently there has been discussion about how the program will be developed further; all I can say is I can't wait until Release 10.

PS How about a BEEP sequencer Dunny?

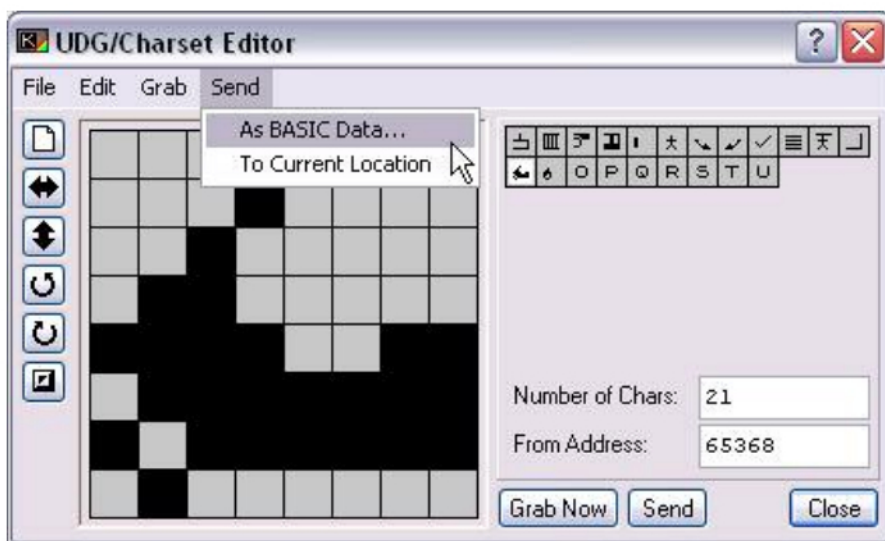
Spectaculator

Spectaculator 6.0 is very nearly complete; this version will mark the end of this program's life as a freeware emulator. That's right - Version 6.0 is to be a Shareware release.

But fear not, those of you without the money to pay for a 'full price' emulator; my understanding is that version 5.3 (the last update to version 5) will continue to be freeware. It will no longer be distributed from www.spectaculator.com, however it will continue to be available from other websites in all its freely distributable glory. Version 5.3 is, of course, an extremely competent emulator; so what makes Version 6.0 worth parting with money for?

The main and most significant addition, if you hadn't heard already, is the emulation of the Russian **Pentagon 128** and **Scorpion ZS 256** clones. Pentagon support was actually built into version 5 from the point of view of timings, however that was without **TR-DOS** support, a rather essential aspect of the Pentagon which is added in now (and if you don't know much about TR-DOS, by the way, check out the beginners guide this issue).

In addition to the main clone hardware, however, Spectaculator author Jonathan Needle has also added in support for a couple of Russian peripherals, the most impressive being the **General Sound** system, an add-on giving 4



ZXF's Crap Games Competition 2002 entry gets its UDGs grabbed by BASin's UDG editor. Here they can be edited and stuck straight back into the code. The time I spent on these...



Emulator news

channel, 8-bit digital stereo sound to games modified to access it. And, boy do they sound funky.

Another feature new to version 6 is a debugger, increasingly a standard feature of many modern emulators. There are also a number of more minor bug fixes and updates, including support for Ramsoft's CSW (Compressed Square Wave) cassette file format, faster flash loading and an extension of Spectaculator's own .SZX snapshot format to include all the new hardware emulated.

It's important to remember, of course, that Spectaculator should not be considered by its emulation features alone: from version 1 this program has come supplied with an extremely user-friendly and comprehensive help file (many emulators come with no help file at all) and version 6 is no exception to this rule. Spectaculator covers so much hardware now, in fact, that the help file is by itself a very useful reference resource, clearly and concisely written.

Worth the cash? Well, if none of the above appeals, it's probably worth mentioning also that purchasing version 6.0 will allow you to upgrade to subsequent versions for free. If the speed with which this emulator has been developed and the sheer range of features - both fun and serious - that have been added in over the last two years are anything to go by, then it's fair to suppose that we can expect plenty more from Mr Needle, who shows no sign of growing tired of developing this particular ZX offspring. Spectaculator could well be on its way to becoming the most comprehensive Spectrum emulator ever written. And that's got to be worth the investment of a few

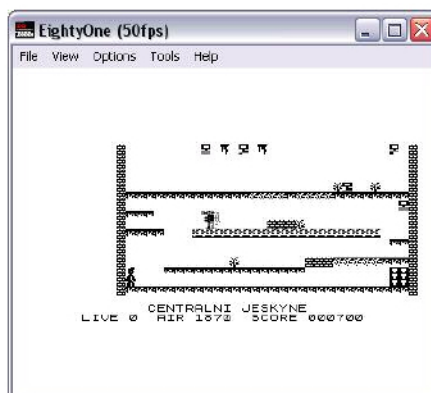
fivers.

EightyOne

Ok, so it's not a Spectrum emulator, but who amongst us does not have a soft spot for the **ZX81**, the first of Sir Clive's computers to sell in enormous numbers? Although Michael Wynne's lovely little ZX81/ZX80/Jupiter Ace emulator does kind of qualify for entry here, since one of the toys Mike has included is a - wait for it - ZX Spectrum emulator for the ZX81. It's experimental, but it does work.

I never really got into the ZX81, but it was the first computer we ever had in our house and I did spend several hours on a number of occasions typing in 1K games out of magazines (although I never worked out how to save anything to tape). One thing I never realised until quite recently was that several high resolution games (games with a resolution comparable to that of the Spectrum) were released for the machine; another is that up to 48K RAM could be attached: EightyOne lets you play with both. The emulator also supports the ZX Printer, in pretty much the same way as SPIN, Spectaculator and vbSpec.

Worth a play, without doubt. And developed very quickly too. www.chuntey.com/eightyone/



REMAKES

HEAD OVER HEELS

Retrospec, we are not worthy. Although credit for this particular title must go to its programmer **Tomaz Kac** and his team: **Graham Goring** on graphics, **Ignacio Perez Gil** on sound FX and further sound FX by **Dorian Black** (who did the music too) and **Pierre Jovanovic**, who organised the game's web presence and logo. Each and every one of these people have outdone themselves on this one. **Head Over Heels** is breathtaking from the moment you double-click its icon.

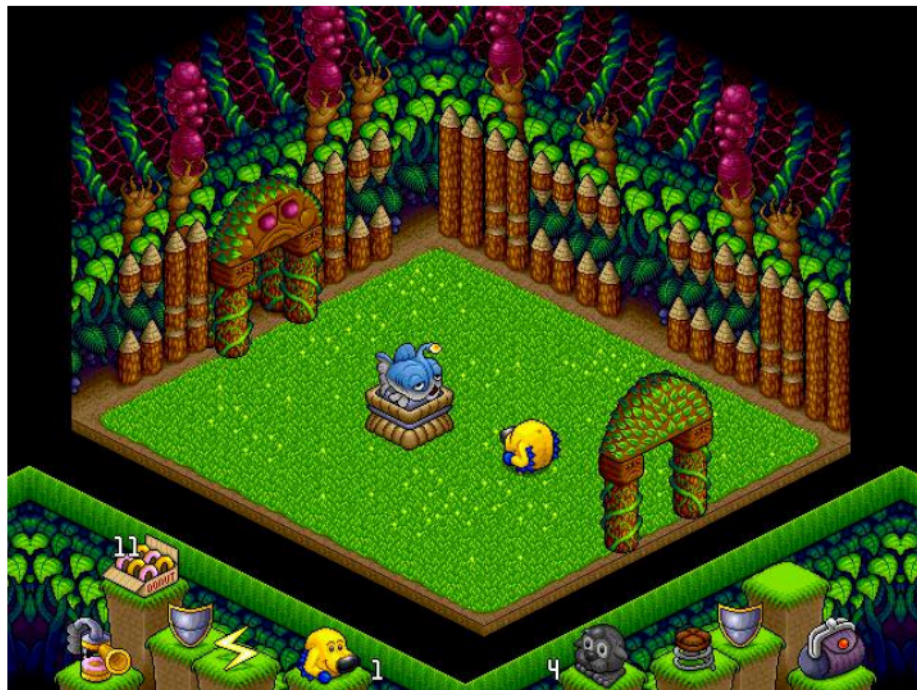
Head Over Heels was an instant hit when released by Ocean in 1987, so news of this remake spread fast when it was released in October - it even got a mention on Channel Four's teletext! This is not, by the way, the **Jorge Rodriguez** remake mentioned in issue 4 and which is still under development at



<http://usuarios.lycos.es/hoh2/uk/>

For those of you who don't know, Head and Heels are highly trained spies, each of them very able in their own right, but together a particularly impressive combination. Head, with his wings, is able to jump high and guide himself as he glides back to the ground; Heels, with his powerful legs, can't jump very high, but can run rather quickly. The two can combine their powers by sitting one on top of the other. And their purpose is to recover the lost crowns of the four planets enslaved to the Blacktooth Empire. Yes.

HOH is simply superb in every respect. You can't help feeling, as you play, that you must be in breach of a law somewhere to have got hold of this for nothing. And that, by the way, you can do at <http://retrospec.sgn.net/>



Head examines a reincarnation fish whilst on Safari. A rather handy creature, this fish will enable you to be reincarnated at the place - sorry, place - at which you ate it.



KLASS OF 99

Klass of 99 has been around for a while, of course (since 1999, in fact) but now it's available in a Windows version, which seems a good enough excuse to me to slap it up and have a rave about it.

KO99 is the game that put Retrospec (yep - it's them again; we're not really surprised, are we?) 'on the map,' so to speak. This remake of the 1985 Microsphere classic, *Skool Daze* has been lovingly transferred to the PC by **Richard Jordan** (coding), **Graham Goring** and **John Blythe** (graphics), **Matt Simonds** (music) and **Carl Murray** (testing) and updates the woeful tale of schoolboy Eric's attempts to stop his report getting to his parents beautifully, whilst still maintaining a Spectrum feel.

Four years old this remake might now be, but you will notice it not

one iota. Everything in it is just right; something timeless has been created here.

Don't know what to do? The objective of the game is to get hold of your report, which resides on the school computers, for which you will need the password, to obtain which you need to knock all the shields from the walls... perfect sense. If you want to know more you can download a full-bodied novella from the KO99 website (<http://retrospec.sgn.net/users/rjordan/klass/index.htm>).

Additional nice touches include the ability to edit the text file from which the teachers' questions and blackboard lesson titles are taken. There are even alternative, ready-made, themed text files to download for extra fun. Which it all is. Immensley.



What are you going on about? 

Send your letters, viewpoints, mini articles, etc to zxf@cwoodcock.co.uk, with 'wibble' in the subject line.

I have just recently discovered your ZXF magazine and I just wanted to drop you a line with words of encouragement. I have been starved of Spectrum news since 2002 which was the last time Alchnews was produced. I myself ran an online magazine for several years devoted to all old computers not just the Spectrum. However, it was simply too time consuming to keep running so I abandoned the idea and simply placed all the articles together on one site which can still be found here:

<http://members.aol.com/nickjc67/monocall.htm>

although it hasn't been updated for a while. My own favourite Spectrum was the +3 which I sadly do not have anymore on which I used to run CP/M. I have now found that RealSpectrum runs CP/M in a 720K disk format and I'm looking forward to trying out the new Windows version.

On the subject of building a new Spectrum. I personally would love to get hold of a new Spectrum compatible but to be honest, most people don't want to have to buy new hardware. Most people already have a PC and as emulation these days is so good, it is doubtful anyone would be willing to spend money on new hardware just to run old games that an emulator can run on their existing PC. Much as I would love to own a new Spectrum compatible, I don't see it being financially viable. The Sprinter board looks interesting but it won't emulate the +3. There is also the problem of interfacing with modern printers which can only be driven by Windows (or Linux). If we can encourage more people to use emulators then the Spectrum community has a chance of staying alive.

There is one problem with this argument. The QL community is alive and well and producing new hardware such as the Q40/Q60 boards that can run existing software, Linux, various emulators (including Spectrum emulators) and a new version of the QDOS operating system. Why couldn't the Spectrum do the same? The QL is slightly different in that it has a more powerful processor, more memory and can run Linux. Regrettably, the Spectrum cannot compete on this level although the last PCW that Amstrad produced had a full graphical interface and Zilog produce a Z80 chip that has a TCP/IP stack already on board, runs at 16MHz and has onboard memory bank switching (it also runs CP/M). It would however take the financial clout of a company like Amstrad to produce such a machine and build Spectrum compatibility into it (like they have with the em@iler). No I think that sadly emulation may be the only way forward. However, if anyone has built a new Spectrum clone then I would certainly be interested in buying one provided it wasn't too expensive.

Good luck with the site and I look forward to reading the next issue of ZXF.

Nick Cheesman

David Harrison makes some interesting points in his letter about the possibility of a new Spectrum. I have also done some thinking on the subject and have come up with something I call the ZX Box. The way I imagine would be the best and easiest way is what he called "The emulator/OS path." My idea would not be to use old PCs, but based on a small and quite

inexpensive Mini-ITX motherboard. They have almost everything directly on the motherboard so all you have to do is add memory and a hard disk. Many of the Mini-ITX motherboards have TV out so you could connect it to your TV just like the original Speccy. To keep cost and size down I would perhaps choose to just have either a disk drive or a CD-ROM mounted inside the unit and connect other units using USB. By using a fanless Mini-ITX and an external power supply you can get a very small computer. To keep costs down the OS would probably be some kind of Linux, perhaps the nice Vector Linux or we could develop a ZX Linux with bundled Spectrum emulator. Since the ZX Box would be used in the living room perhaps a wireless keyboard would be a good idea.

Staffan V

ZX Box, eh? Well I guess someone else had to come up with that name too (see my editorial, issue 2, although mine was to be called the ZX-BOX - note stylish use of capitals and hyphen). It is, after all, a corkingly good one. My machine was/is (it's still on the back burner) not intended as anything other than a personal mod, however; there has never been any intention for other people to make or buy one - at least it was never a prerequisite of me completing the project that this had to happen. That's the problem with these 'New Spectrum' ideas - they seem to expect or require others to be built/bought, and I simply can't see that happening when everyone's tastes are so diverse (and, please note, I don't include the Sprinter under the 'New Spectrum' category, which I see more as a modern home computer).

In reply to David Harrison's letter (ZXF5) on the production of a new Spectrum, I'd like to offer a few thoughts from someone who's been there and tried. David says his goal is a "new Spectrum capable of running old software but extensible, flexible, and powerful: a low cost, easy-to-use, and easy-to-program computer". It's a great idea, but the truth is hardly anyone wants one. The majority of the Spectrum scene is made up of retro-gamers, and they are perfectly happy to play their old favourites on an emulator. There just aren't enough of the rest of us to make it viable.

I hate to say it but it's not like the Commodore scene where there are lots of people still actively using their machines for purposes other than gaming, who are willing to spend large sums of money on hard-drives and other peripherals, and pay for new software. In fact you can't even give it away on the Speccy. With apologies to all those who have supported my efforts, there has really been very little interest in SE Basic, a big upgrade to Sinclair Basic. Unlike its Commodore equivalent it costs nothing, but I estimate at most it has a user base of about ten people.

Say you did build a new machine. David suggests using standard components like 3.5" floppies, PC keyboard, PS/2 mouse and SVGA graphics. It would be cheaper to buy an old PC and use it to run RealSpectrum than building these components into a new machine. The ZX Spectrum SE was my attempt to get around the price problem by using existing hardware. Well, my first solution was to create a virtual Spectrum machine with lots of new features, as suggested by David, but no emulator authors were interested in emulating a machine that didn't exist. I took

the most advanced, most compatible machine I could find - the Timex TC2048 and got Jarek Adamski to modify it. I'd say if you wanted you could probably get the base machine (no PC keyboard) for about £150 to £200 - the collectibility of the TC2048 bumps the price up. For that you get a machine which will run 99.9% of all software written for the ZX80, ZX81, ZX Spectrum (16K, 48K and 128K), TC2048, TS2068, even Interface 2 cartridges and Timex cartridges, and a decent picture, even in 512x192 mode, via a video to SCART lead. Sounds quite good, if a little expensive, doesn't it - total ZX Spectrum SE owners: one.

I'll leave the rest of David's letter for others to address and try and end on a positive note - the ZX Spectrum SE does exist, it is fairly well documented in the CSSFAQ and it may be making its first appearance in an emulator in the not too distant future.

Andrew Owen

You see, I want my Super Spectrum to be a Spectrum. It's allowed to look different, so long as it retains that Spectrum feel, by which I mean Sinclair Spectrum feel (not Amstrad Spectrum feel). Oh sure, the +2, +3 and +2A have an undeniable niceness to them, but I never used any of these until my recent rebirth. Anyway, Andrew uses a Timex machine for his Super Spectrum, which links nicely to our next letter.

In ZXF#3 (in article about Spectrum SE) Timex TC2048 was mentioned. I think that this computer isn't well known in many countries, so I decided to write some words about it.

I hope ZXF readers will find this text useful.

Timex 2048 is a Spectrum 48k

clone with few enhancements:

- better keyboard (plastic keys, big space bar, extra Caps Shift)
- on/off switch
- "power on" LED
- built in Kempston joystick port
- built in composite monitor output
- bigger (and louder) speaker
- extra video modes (maximum was black & white 512*192 pixels)

The compatibility with Spectrum is very high, I think that over 90% of ZX software works (I loaded over 500 games and only few didn't work). Timexes were VERY popular in Poland, they were available in shops (brand new) at a price about 10% higher than second-hand Spectrums.

TC2048 wasn't the only Timex machine sold in Poland. There was also FDD3000 - a 3-inch disk drive (using a TOS - Timex Operating System) with it's own Z80 CPU and 64kB of RAM. FDD could be connected to Spectrum or TC2048, and it allowed to run CP/M software. FDD3000 was so popular that it became a standard in my country.

If anybody wants to buy a Timex 2048 or FDD3000 I advice to search in Poland. I think that hundreds of those machines survived.

Greetings

Piotr Szymanski (aka PopoCop)

Gloooooop from Johnathon Cauldwell was slapped a little and left forlorn by your remarks. I would to rise in defence of its qualities as I believe its belated release marks the continuing of something interesting. :o)

After playing the game for more than a few screens (and a couple of times) you find that the



game is a little like the simplicity of early Ultimate games like Jetpac and PSST where the environment is one screen and the enemy with pick up devices to aid the games and its functioning.

The inflatable baddies idea is excellent and carries the amusement of Dig Dug. The game is completed by a time frame within the unknown quantity of how many screen or enemy you have. Will you save the day within an hour. Or will the hour be saved in the day??? or will it take weeks and will the woman who used to recognise your sleeping form still let you in the house if you leave... per chance...? The big graphics and simple animation add extra amusement, and if Your Sinclair had lasted longer then I would have probably got it for the cover price :o)

For the money I think it is excellent. Beat 'em up for me... let people see their work by getting them to redesign the inlay card. I saw the games integrity form the knowledge or Jonathon Cauldwell's work and the screen shot on the Cronosoft web page.

Also the flash beer game is excellent and I awiat their telling me to give them money! :o)))

HeheheHEheheheHehehe perhaps I need to have a nibble.

Off to the kitchen for me.

Regards

Kevin Bennett

Fair comments, in all cases. The reviews are only my opinions and I encourage readers to challenge them!

Incidentally, I understand a run of the Flash Beer cassettes have now been produced - at least I got sent mine, and it looks superb (including cellophane wrapper -

and don't I wish I could do that). At present, WSS's web page for the game is unchanged, but you can still request information at www.c-system.hu/edy/wss/flb/

First off the bat, have to pat you on the back for a GREAT Mag, i love it!

I'd like to know how one might go about buying a years subscription of the proper hardcopy of the mag... As i'd love to show my support for what i think is becoming the No.1 Speccy mag. I've looked around the site, but i can't find any info for subscption.

Have you ever thought of doing a BASIC Tutorial section in the mag. Perhaps one or two pages, with a little program for beginners (Such as myself) to input into their computers/emulators. I certainly hope i'm not the only person who has dusted off his +2B recently. With cronosoft and then your magazine... It's revived my speccy fever. Now I'm trying to learn BASIC after 16 years!! I never had the patience as a kid..but at 23.. I seem to be taking it in more..

Cheers

James

Welcome back to the fold, James - we've been expecting you ;) Unfortunately I have no plans to introduce a hardcopy subscription service, I'm afraid. There are a number of reasons for this, but the main one is that it would be too expensive. Material costs alone would put the price up to something in the region of £3 - £4 and then there's postage. Compare that to the (voluntary) £1 cost of downloading the magazine. Also there's the time it would take to print out all the copies - and I simply don't have the time for that at the moment. It is just about possible that at

some point in the future I might offer a 'buy this issue on paper' service for users who want a hard copy. The reason for this is that ZXF is restricted in its design due to the fact that most printers leave a white border around the edge of the page - so all pages, therefore, are predominantly white background. I would love to give ZXF a proper 'magazine feel' to it and have wondered about buying an 'edge to edge' printer in the future, designing ZXF to make full use of this and then offering hard copies of the magazine for sale to those who dislike the white border on their printouts. But, of course, a design that utilised edge-to-edge would use up a lot more ink than the current issues consume, which would push the price of the printed version up higher still. Regardless, I still would not offer a subscription service (ie, you would pay per issue), because at the moment I can walk away from ZXF at any moment and not owe anybody anything. I have no plans to do this, of course, but who knows what lies on the horizon - and there have been plenty of cases in the past where people have paid their subscription fees and waited... and waited...

Regarding the BASIC tutorial idea - the problem is it would be difficult to know where to start, with such a diverse range of skills out there. I'm not sure an absolute beginner's guide to BASIC would be within the remit of the magazine as it exists at the moment, although I can see your point about appealing to 'returnees' who now would like to learn something about their machine they weren't interested in first time round.

Just some thoughts - let me know what you think!

Meanwhile, quite a few people have become rather excited as of late - understandably so, of course - by the new Dizzy animation at

www.fantasticdizzy.co.uk (see the Oliver Twins interview for more on this). Below, Sentinel raises the rather novel idea that those of us who enjoy the series might perhaps wish to thank Codemasters for the hope this offers (and - as Sentinel points out - it is only a hope at this stage) for a new Dizzy game in the future.

I have quite a bit to say here, and I hope you will read to the end. You may find you will be glad you did.

I would encourage all Dizzy site owners to add this information somewhere visible on their sites. If you don't have a Dizzy site but are a fan and have a website you may want to do so also. Everyone else may want to let their friends know and also help spread the word around.

I've been speaking with Philip Oliver over the past few days (if you haven't yet seen **www.fantasticdizzy.co.uk** lately you should go now! :) there's also a link to the petition there, so you can either link to that and the petition, or just that site, but please remember to tell people to click on "WHAT'S THIS?" after watching the teaser) and one thing he told me is that their relationship with Codemasters is much better now.

Codemasters gave the okay for them to make a sample of what a new Dizzy game might look like. I guess they are having second thoughts. Maybe the 1500+ signatures on the petition so far has something to do with it. Whatever the reason, we'd be getting Dizzy back and that's what matters.

I asked Philip Oliver if it would be a good idea to email Codemasters and tell them thanks for what they let Blitz Games do, and he is all for it, but would like to remind everyone that the teaser doesn't mean there is a Dizzy game

being developed now, although it could be the start of things.

If we would all show Richard and David Darling our appreciation for letting Blitz Games make the teaser it would make them happy and the interest we will show is an incentive for them to finally let go of whatever reason they haven't allowed a new Dizzy to come to fruition.

To write them please use the email provided, which will be forwarded to them to get your message. The reason for this is I don't want them to feel imposed on and feel like everyone has their email, getting bombarded with email directly. This could be an annoyance. Philip Oliver and Bill Everiss, head of Codies PR, agree that an inbox of full of Dizzy mail might annoy the Darlings who need to get on with more important matters of theirs. Though, your message of will get to them and you never know, you may even get a reply! :)

So, please, things are looking brighter, and if you have signed the petition and you want Dizzy back then you will find it rewarding in the long run to express thanks to Codemasters. (If you haven't signed please do. As both have accepted the petition I started as the proper way to show you want Dizzy back. If it's good enough for Matthew Smith - you read correctly! ...)

Just my suggestions as how to approach them:

You may find it's a good idea to say good things about them other than this (aswell as this), whatever that may be; 1) how you enjoyed them when you grew up with your old computers 2) how you like their games now and wish them much future success, etc. And I don't say this as a pretense, but quite honestly I am very happy to see Codemasters have been nice enough to let the Olivers show us what a new Dizzy game may look

like. It undoubtedly means they see the production of a new Dizzy game to be a probability and we SHOULD BE THANKFUL! ;)

When you write it may be better to keep emails to a minimum. Still this is upto you individually. A nice paragraph, or two short to medium paragraphs at most would do. Still, this is only what I feel is a good suggestion but if you feel you have a bit more to say to them then by all means go ahead. You should be very polite and make sure you understand that the teaser doesn't mean a new game, but you are thankful they let them do it.

You may email them through here: custservice@codemasters.com

They will know you have all written. Don't worry.

Also since it will go through Customer Service, in the Subject Line you may want to put something like:

ATTN: Richard and David Darling - Thank you for the Dizzy Teaser

This is what I did and I know my email got through. Customer Service was also told to tell me 'thank you very much for your kind email', so apparently they are getting through to the Darlings.

Philip Oliver said to me after I asked about writing the Darlings:

"By all means write to the Darlings - but don't let anyone make out that it's anymore than it is. On the website it's clear it's just a graphics test etc."

So you see he also believes it's a good idea. It couldn't be a bad idea to say thanks to Codemasters. I hope you all will write and thanks very much for your time.

Sentinel



Rough Justice

Author: **Jonathan Cauldwell** (Published by **Cronosoft**) Price: **£2.99** Website: **www.cronosoft.co.uk**

Reviewer: **Kevin Bennet**

Rough Justice is an excellent collaboration between Jonathan Cauldwell, Yerzmyey, Tommy Pereiro and Cronosoft. The game is presented as a market re-defining game through its efforts and

realisation, with superb artwork and presentation of an excellent standard. The artwork of the inlay and loading screen was specially designed by Tommy Periro of the USA for the

project and carries the theme of Cronosoft's development.

The soundtrack is by an increasingly know artist form Hooy-program, Yerzmyey. Yerzmyey's soundtrack drives the game from the movie like introduction titles that also introduces Jonathan Cauldwell and Cronosft. After around 17 years of playing Spectrum games, with their superb realised environments and AY artists Yerzmyey themes Jonathan's coding and game design superbly. Well paced and enthusiastic the instruments and shifting of the theme adds depth to the game making the small world of caverns an epic with a smile.

Classic game 'themeists' such as Dave Rodgers (Cybernoid I/ II/ Marauder), David Whittaker

(Amaurote/ The Tube/ Glider Rider), Rob Hubbard (Thundercats/ Saboteur 2: Avenging Angel/ Magic Night: Storm Bringer) & Ben Daglish (Auf Wiedersehen Monty/ Blood

Brothers/ Switchblade) produced impressive AY themes. Rough Justice takes it all on without leaving any disrespect and does something fresh. Have I laboured the point or high-lighted impressive development continuing? or should you be

playing to see what I mean? or are you leaving thinking this is an award ceremony?

Shiplies ship is amusingly under-powered looking as if she faces certain peril at the hands of the alien drones and rockets. Twin guns with additional fire power increase the survival rate beyond loading the tape into your Spectrum, then

you begin to learn the bomb. The day I gave up worrying and learnt to love the bomb :o) The physics of the environment, its weight and motion are impressive as the caverns show low

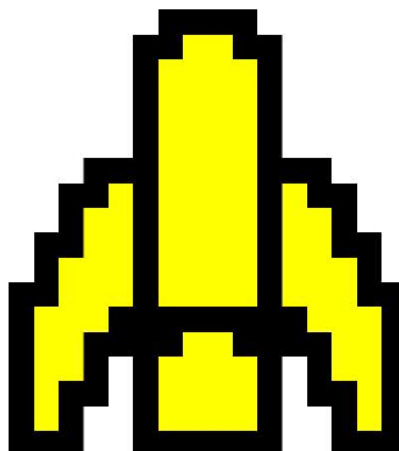
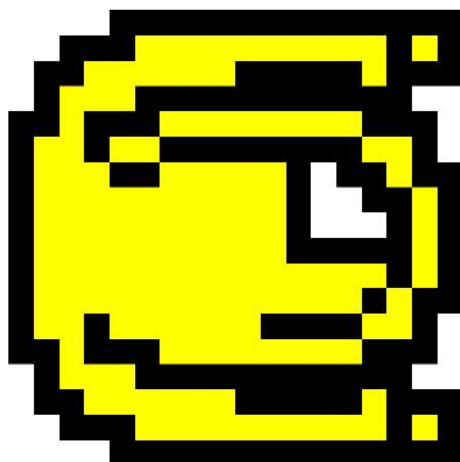
pressure and gravity as the exploding targets drift apart, simple and impressive design. The weight of speed and motion of Shiplies craft effect the trajectory of the bomb as it launches making a superb element of anticipation and strategy.

Enemy attack through a method of stalking and attack with the almost random bouncing drones and the guarding creatures that you need to watch out for as all it not what it seems. The game is impressive in cavern design as the random element that is liked in gameplay is in design, as Jonathan Cauldwell programed the Spectrum to generate the 151 caverns. The screens were then edited to remove death traps and blockages.

Some may be looking for Cybernoid as there are similar elements as you would expect. Cybernoid defined Spectrum gaming for some time, a truly impressive work of progression from Raffaele Cecco & Hugh Bins. Rough Justice impresses more in consideration as it is a budget priced title rather than a £7.95

GPB 1988 release. Therefore oh people of a few quid like the jobless, the worthless and the mean you must read on.

The weapons of Cybernoid are within a different environment, although truly impressive the physics are not as



physical in visual representation. With this you see the maturity of a 2003 product that is a new time of developing to add to the older, and yet to honour it as a continuation of development and the superb amassed collection of the work of the artists of now 21 years!

The game plays... you die... you play... you die. Back again in the first cavern again the theme drives you on to play again... I will not tell you of your first death, it must face all to the amusement of Mr Cauldwell. Let me tell you though that I died in front of him at its launch this very month, November 1st. Mr. gamer of 2 decades plus! (This review was delayed a little as the team resolved an issue of compatibility, you know you have the support

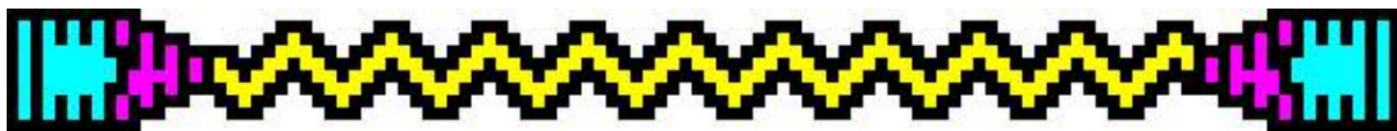
and integrity of the product before you buy.)

Join those who have bought and played whether you have emulation and/ or a Spectrum. Personally if you sold your Spectrum or never had one then consider buying one. This is part of a development that looks to prise some of the oldie coders and new talents alike from their lives in an expression of art, and the enduring nature of the Spectrum for diverse gaming realisations. Not convinced? old monies who think anything more than a year old looks and is old technology should play on an emulator. The game looks and plays like a Windows runtime. This, though doesn't deliver the true detail and performance of actual hardware.

An irony could be the IBM PC

compatible that smothered many formats could help give rise to their continuing effort once again. I believe that Cronosoft believe it as they have more games from Mr Cauldwell and other programmer from the Spectrum history. Follow a link to the Cronosoft web site for other titles and future releases. Cronosoft is becoming a truly interesting collaboration of artists, programmer and musicians alike.

For me, it is my pleasure to make a contribution for a continuing pleasure to Spectrum and 8-bit gaming. Perhaps some things never go away, just rest a while.



Dizzy X: Journey to Russia

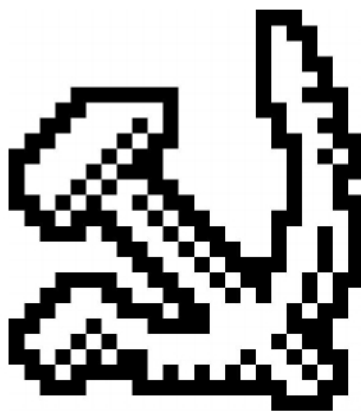
Author: **Sergey Gorshkov** (Translation by **Dmytro Gryshchenko**) Price: **Free** Reviewer: **Colin Woodcock**

Websites: www34.brinkster.com/zxtop/ and <http://tcg.speccy.cz/index.php?pg=games-en>

It's nearly ten years since **Speed Code** knocked out this successor to the Dizzy series. Graphically indistinguishable from the originals (if that's what you can call them), Dizzy X saw our egg-shaped hero concerning himself with an invasion of space invaders. And Russia. The problem was, you had to speak Russian to understand it...

Not any more, thanks to Dmytro Gryshchenko, who has taken the Russian original and translated it into English (and how fitting that he should do so in time for our Oliver Twins-themed issue). Dmytro's release (available from www34.brinkster.com/zxtop/) stripped the original down to a

pure 48K title; in no time at all, however, a 128 version was also released by **Wixel** of **TCG**



(<http://tcg.speccy.cz>) - essentially Dmytro's work with the 128 features of the Russian original

added back in.

If you're a fan of the Dizzy adventures and haven't yet discovered this little treat then this will be a pleasant surprise indeed. If - like me - Dizzy was never something you got into during the golden years and you're wondering what all the fuss was about (naturally - since Codemasters have denied the free distribution of their titles - you're unable to find out) then this is definately worth at least a look. And, as a game in its own right, the beautiful graphics are added to rather nicely by the in-game AY music (which, by the way, seems to dislike Spectaculator). Nice one.



Abe's Mission - Escape

Authors: **Brothers/Sweet Factory of C15/zOOm/Wixet** Price: **Free**

Download: <http://tcg.speccy.cz/> Reviewer: **Colin Woodcock**



So how cool is this? A PlayStation game converted to run on a Spectrum. Yes. Well, sort of.

Abe's Mission - Escape is based on the Abe games (*Abe's Oddysee* and *Abe's Exoddus*) by **G T Interactive** for the PS One (as it's now called) and was originally an entry for the Russian 'Your Game' competition in **ABZAC Magazine** (<http://cobrasoft.narod.ru>; en route, you might also like to visit <http://babelfish.altavista.com>) in 2002. Now it's been translated into Czech and English by **Total Computer Gang** (TCG) programmers **Wixet** and **zOOm** in collaboration with **Sweet Factory of C15** and released in MB-02, D40/80 and good old .TAP formats. A fairly impressive piece of joint working, then.

To get *Abe's Mission* to work, you'll need to run your (128K) Spectrum - real or emulated, of course - in **USR 0** mode, which is a simple matter of entering 128 BASIC and typing 'USR 0' (and ENTER, obviously): the Spectrum will appear to reset into 48K mode; just type **LOAD ""** and start your tape. Select English language from the intro page and you're away.

In **Abe's Mission - Escape**, our hero, floor-waxing employee of the year at the Oddworld RaptureFarms meat processing plant, overhears a conversation in which the true ingredients of *New'n'tasty Scrab Cakes* and *Paramite Pies* are revealed. That's right folks, with profits at the plant tumbling, mean old boss Molluck has come up with the perfect plan for reducing costs and workforce overheads at the same time - and let's just say we're not talking voluntary redundancies here.

Rather unsurprisingly, perhaps, Abe decides that now might be a good time for a change of career and legs it. Companies that measure the performance of their employees in kilograms, however, aren't the sort to respond positively to such action and to get free Abe will have to get past the corporate machine-gun armed robots on the way. There's also the small matter of his fellow Madokan workers at RaptureFarms, who he can't exactly leave to become next week's main course without feeling just a tad guilty, so Abe's mission becomes to get all 40 of his colleagues out of the plant and away, helped only by his distant pal Owen (who communicates with him via the plant's various computer terminals).

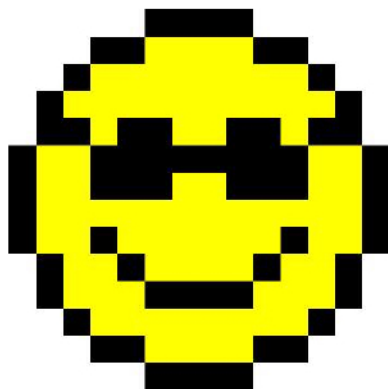
Abe is a beautifully animated game, with particular attention given to the movement of its hero in a manner reminiscent of *Prince of Persia*. Abe can walk, run, jump, tiptoe and even roll his way around the processing plant, and you'll need to use all of these movements if you want to achieve your goal. He also can communicate with his fellow workers with a number of simple commands, such as "wait" and "follow me" (luckily, they're very obliging). It's quite a complicated game to control, then, but it's worth sticking with - and you just know it will be as soon as it starts.

Abe would have cost a fortune in the 80s and the hype would probably have been significant too. As it is, it's free and so your duty is to play it and tell others. Go away, go play and go say.

Minesweeper

Authors: **Alvin A** Price: **Free**

Download: <http://www.geocities.com/aralbrec/> Reviewer: **Colin Woodcock**



Back in the spring issue I reviewed Compiler Software's ZX Mines 2.0, a competent piece of Spectrum software indeed, but do you remember what I said then?

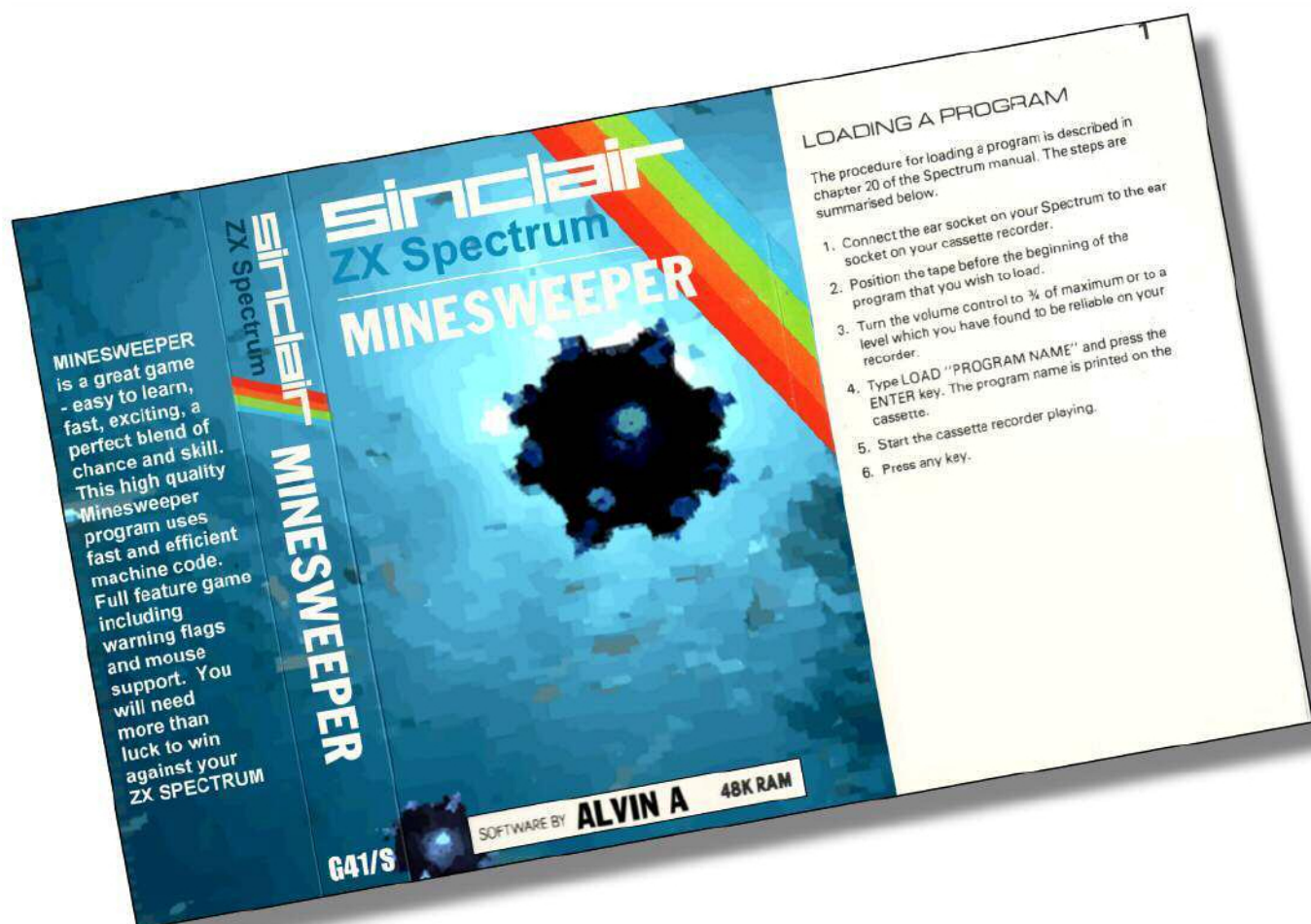
About the only thing it lacks are the flags you place when you think a square might contain an incendiary device just waiting to send your limbs on separate missions and the little yellow emoticon that turns from happy face to sad face when it does.

Perhaps **Alvin A** was listening, for *Minesweeper* is probably about as close as to the Windows classic as it's possible for a Spectrum to get:

flags, emoticons and all. There's support also for Kempston and AMX mice, so even the right clicking of suspect squares is maintained.

Minesweeper was developed with **Sprite Pack v2.2** for the **Z88DK** cross compiler and also comes with a version for the Timex Sinclair TS2068. You can also download the source code from the site.

This is the sort of simple game that would have been absolutely perfect as a Sinclair Research label release. Which got me thinking...



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RETROSPECTIVE... 1983

Matthew Harrodine continues his look at the golden years.

Welcome to another installment of retroSpective, a per annum stroll through the history of Sinclair and the ZX Spectrum.

Peripherals...

1983 was the year in which the Spectrum began to tighten its grip on the home computer market; aided, of course, by Sinclair promises of what you would be able to do with the machine a few months down the line! Sinclair was promising a mass storage device, networking, RS232 communications, and a modem for Prestel/Micronet connectivity. Pretty impressive, given that the only Sinclair peripheral at the time was the fairly limited ZX thermal printer. The mass storage device turned into the ZX Microdrive system, networking became ZX Net, and RS232 was, well, RS232! All of which were interfaced to the Spectrum using the ZX Interface 1. The interface eschews all of the Spectrum's design principles (inside and out) and is immediately identifiable as a Sinclair product, meshing perfectly with the Spectrum itself.

Of all the peripherals announced and delivered during 1983, the Microdrive is the most interesting. Clive Sinclair didn't like traditional floppy disk drives because of their weight, power consumption, and cost. So, in true Sinclair style, they 'rolled their own' storage device. The Microdrive was a tape cartridge system, using a magnetic head (like in a cassette recorder) which read a loop of tape held in a small cartridge. It was sequential like tape but operated at much higher speed so gave the illusion of random access. Data access times were roughly half way between tape and floppy disk, you could get 85Kb on a



cartridge, and you could chain up to 8 drives together. The tape itself ran at 70cm/s which works out to roughly 2.5 Km/h! Quite fast for a strip of tape only 2mm wide!

In typical Sinclair fashion the microdrive (and the Interface 1) turned up late! It was announced in October 1982 for availability in early 1983 although it ended up being September before anyone got their hands on it! And even then Sinclair caused controversy by offering the first microdrives to customers who had mail ordered their Spectrums nearly a whole year earlier. There was some backlog to clear and although Sinclair tried to claim that it was fair (first come, first served) many felt cheated, especially those who had purchased their Spectrum at a retail outlet, such as UK high street giants W H Smith and John

Lewis. Each ZX Microdrive unit cost £49.95 with the ZX Interface 1 at £29.99 if purchased with a microdrive or £49.99 if purchased alone.

The year was nearly out, when in December, the Interface 2 arrived and for £19.99 added a cartridge slot and a joystick interface. The Interface 2 wasn't a huge hit as there was very little in the way of cartridge software produced - none in fact, that I can recall! The other limiting factor was the provision of only one joystick port which was not much good for multi-player gaming! Third party interfaces, such as the Kempston interface, became much more popular.

The modem ended up being made by another Cambridge firm, Prism and was not a Sinclair

branded product.

Retail Growth...

Sinclair was beginning to hit the big league with many of the UK's biggest retailers signing up to sell Spectrum hardware in their stores. Today, we would think nothing of going into a shop to buy a computer but in 1983, at least in the UK, it was a novel and new idea for shoppers. Computing was still shrouded in mystery and many were still used to the idea of computers being the sole reserve of electronics hobbyists and 'technical' people in large corporations. A computer you could buy from a department store? What was all of that about?

It gets better for Clive...

The retail sector played a crucial part in making 1983 an incredibly good year for Clive and Sinclair Research. In March's Sinclair User it was announced that Clive was now a multi-millionaire due to the excellent financial performance of his business. Just two months later in May he was awarded the accolade of Guardian Young Businessman of the Year. But even that was eclipsed just three months later when he was knighted in the Queen's birthday honours list. Arise, Sir. Clive!

Sinclair's impetus edges competitors...

By now Sinclair and the Spectrum were on a roll. The product had impetus through its highly visible public profile, reliability and third party support. It was arguably the UK's most popular computer. Competitors tried to copy Sinclair's formula but it wasn't exactly working out for them! Oric had seemed to be the biggest threat, pitching the Oric directly at Sinclair's customers and offering it for less money, although a 'bugs in the ROM' scandal ended up playing into Sinclair's hands. This affected compatibility between Oric machines with differing ROM versions. The different versions were released, out of necessity, as

Oric tried to resolve the problems. As a result, image destroying return levels were high. These problems gave Sinclair the chance to reduce the price of the Spectrum to £99 (16Kb) and £129 (48Kb) which matched the Oric 1. Oric's problems allowed Sinclair to do this without allowing their hitherto higher prices to have a negative impact on Spectrum sales in the early part of the year. Oric brokered deals with W H Smith and Boots to sell the Oric next to the Spectrum but it did not help their cause - people trusted Sinclair.

Dragon, whilst optimistic in the first half of 1983 began to suffer problems in the latter part of the year as they turned their attention to the US market and the upgraded Dragon 64. They got their sales forecast horribly wrong and started to have financial difficulties from which they would never really recover. Despite the Dragon being on the shelves next to the Spectrum and Oric it couldn't compete on price and Dragon could ill afford to do anything about that!

Prices tumble...

For the duration of 1983 it seemed computing just kept getting cheaper. Commodore's VIC 20 was a revelation just two years earlier as the first sub-£200 colour computer but now both Sinclair and Oric along with others had blown it away; not just on price but on features as well. By 1983, the popular VIC was looking very limited. The growing microcomputer industry's next price challenge came in October from across the Atlantic.

Mattel enters the fray...

A popular, large, and reputable US toy manufacturer with bags of cash to invest in a computer system seems like a good bet to succeed. At just under £80, the price alone for Mattel's new colour Aquarius system would have sent a shockwave through the market. Thankfully, for Sinclair anyway, the machine was woefully under

specified with only 4Kb of RAM and probably did the (by now heavily discounted) VIC 20 more harm than anything else. Trivia fans may be interested to know that the Aquarius was manufactured by Hong Kong's Radofin who also made a Dragon branded MSX machine for Eurohard after Dragon Data's final collapse.

Software...

The Spectrum software market continued to grow with some famous software houses beginning to get involved, notably Ultimate and Imagine. However, it was yet to explode and Sinclair continued releasing new titles under the Sinclair brand. One particular advert from the summer of 1983 shows six new titles across a range of genre; leisure, programming, and productivity. These were produced for Sinclair by Psion and Melbourne House. Titles included Computer Scrabble, Cyrus Chess, Small Business Accounts, and even the Forth programming language which was becoming briefly popular, at least on the BBC Micro. The advert claims that Cyrus Chess is "based on the Cyrus program, which won the 2nd European Microcomputer Chess Championship and trounced the previously unbeaten Cray Blitz machine".

Wow, by the end of 1983 your Spectrum could mimic a Cray supercomputer!

The drama continues when retroSpective covers 1984 in ZXF07...

www.museummc.org.uk

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A Correction to retroSpective 1982

Last issue, I stated that the Oric 1 computer could render 16 colours. In fact, the Oric was only capable of 8; same as the Spectrum. The error was caused by a piece of "creative" Oric advertising which claimed 16 colours. The copy then states "8 foreground and 8 background" although in fact, rather cheekily, it was the same 8 colours for each!

Six new ways to make more of your Spectrum



Take a look at these brand-new titles. Each is an outstanding new program using the full potential of the Spectrum, for games with stunningly animated graphics, for strategies of fiendish cunning, for masterly applications of computing capability...

Cyrus-IS-Chess Based on the Cyrus Program, which won the 2nd European Microcomputer Chess Championship and trounced the previously unbeaten Cray Blitz machine. With 8 playing levels, cursor piece-movement, replay and 'take-back' facilities, plus two-player option. The 48K version has many additional features including an extensive library of chess openings. For 16K or 48K RAM Spectrum.

FORTH Learn a new programming language, as simple as BASIC, but with the speed of machine code. Complete with Editor and User manual. For 48K RAM Spectrum.

Horace and the Spiders Make your way with Horace to the House of Spiders, armed only with a limited supply of anti-spider-bite serum. In the house, destroy the webs before the spiders can repair them. Then destroy the spiders, before they destroy Horace! Undoubtedly the creepiest Horace program ever produced! For 16K or 48K RAM Spectrum.

Small Business Accounts Speeds and simplifies accounting work, produces Balance Sheets, Profit and Loss information and VAT returns. Complete with User manual. For 48K RAM Spectrum.

Backgammon A fast, exciting program, with traditional board display, rolling dice and doubling cube. Four skill levels. For experts - or beginners. (Rules are included - it's the quickest way to learn the game.) For 16K or 48K RAM Spectrum.

Computer Scrabble The famous board game, on-screen - with the whole board on view! Full-size letter tiles, four skill levels - the highest of which is virtually unbeatable. For 1 to 4 players. For 48K RAM Spectrum.

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THE OLIVER TWINS

In his first article for ZXF, **Robert Hazelby** talks to the brothers who put **Codemasters** on the map during the Spectrum's later years.

For most people, Philip and Andrew Oliver (The Oliver Twins) are best known for their classic Dizzy series that ran from 1986 to 1993, and spanned a whole host of computer and console formats.

What you may not know is that during the mid to late 1980s they were responsible for more than 50% of Codemasters' output. Classic titles such as 'Super Robin Hood', and 'Grand Prix Simulator' were all the work of The Oliver Twins.

From humble beginnings as bedroom programmers in the early 80s, to today where they are head honchos of their very own dev co - Blitz Games (www.BlitzGames.com). There's no doubting that the Oliver's have come a long way since their first program was printed in an ancient edition of Computer and Video Games.

Many thanks for taking time out of your busy schedules to talk to us. Many ZXF readers probably won't have heard much from you since interviews with you both appeared in numerous 8-bit magazines back in the '80s.

We've been a little under the radar but we've been here the whole time, making games and building up a successful company. We now employ over 120 staff and have a huge back catalogue of successful games. Check out our website: www.BlitzGames.com

A number of internet fan sites seem to be doing an excellent

job of keeping the Dizzy flag flying, whilst amateur coders (many based in deepest Russia) are continually churning out numerous unofficial Dizzy adventures. Are you surprised by the continued interest gamers have for Dizzy considering it's been such a long time since his last official outing?

We're always surprised at how long Dizzy's appeal has lasted. We're also really touched by it. It's genuinely humbling to see people still so into something we created nearly 20 years ago and it's also great that people are still getting pleasure from it.

The Dizzy titles have many cunning puzzles littered throughout each game, as well as an amusing background story. Did you plan out the map and tale for each game before starting work, or instead make everything up as you went along?

Most of the time we'd plan out the bulk of the map before we started. We've still got big long rolls of paper in the loft with the original maps and plans on them! Games obviously change and evolve as you work on them so we'd sometimes change things as we went along but it was always important to have a plan in place that we could refer to or we'd have gone mad trying to keep track of what we'd done and where we'd got to!

One of the trademarks of a Dizzy game is the vast array of characters you can interact with during the course of an adventure. Where did you dig up

all the names for the various characters? I have reason to believe that Wizard Theodore is currently living on the outskirts of Bristol, and that another character was named after a neighbour's dog.

One of the hardest things to do is to come up with good names for characters in games. At one point we even had the embarrassment of buying a baby name book to get some inspiration! Theodore used to be one of our neighbours though and we did name the wizard in Dizzy after him. (And yes – he does currently live near Bristol!). As for the dog – the dog at Codemasters was named Zak but he was actually named after Wizard Zak in the game rather than the other way round. We got that name from the author of the Z80 Programming Guide we used to learn coding – Rodney Zaks.

Although the last Dizzy title was released in 1993 did you have future adventures planned for egg-shaped chum, and if so, how far into production did these get?

Towards the end of our time at Codemasters there were a couple of Dizzy outings that we'd worked on that didn't end up being released but we moved on to pastures new and had a load of great new characters to work on instead.

Do you think a new Dizzy game would be well received if released on any of the current consoles? Could the colourful but 2D graphics remain, or would our

egg-shaped chum have to make the transition into 3D (similar to Mario 64/Mario Sunshine) to succeed?

It would be a bit egotistical to say 'yes – he'd be well received' straight away but we do regularly hear from people of all ages who would love to see him back. We quite often do careers lectures at universities and even students who should be too young to remember him still ask us if we're going to resurrect him.

As for how he'd look – we'd probably want him to go 3D and it would be great to be able to see him in a game the way we always wanted him to be but weren't able to do because of the technology we were using. We've done a few tests over the years of how he'd look and we've actually just put a video of some recent test images up on to www.fantasticdizzy.co.uk so feel free to take a look and let us know what you think.

What is the current situation with the Dizzy? I've read two very different things during my research for this article. The first rumour states that Codemasters own Dizzy and all related names, and that you have attempted to buy the brand back from them, only to be stopped by a sky-high fee. The other one, which I have heard more recently from a writer for GamesTM, is that during an interview David Darling was asked about the likelihood of Dizzy appearing on the Gameboy Advance, and his reply was that they no longer hold the license. Please could you clear up this confusion once and for all and let us know where in limbo Dizzy currently resides.

The rights to Dizzy are evenly split between us and Codemasters. Every now and then we talk about him again but we've not taken it any further just yet.

You've programmed many, many games over the years, (readers,

check out www.olivertwins.com for the full low-down) but is there one title in that massive back catalogue of yours that you're most proud of creating?

That's a bit like asking someone to choose their favourite child – it's impossible. We obviously have incredibly fond memories about Dizzy because he's what helped us really get things going and Super Robin Hood will always be special because it's the first major game we signed to Codemasters and the first one we got paid half decent money for! Every year the guys that now work at Blitz produce something bigger and better than the year before and there's always something new to be proud of.

During your time with Codemasters you produced a tidal wave of `Simulator` games, including `Grand Prix Simulator`, `Ski Simulator`, `Fruit Machine Simulator`, to name but a few.

What research was carried out in the production of these titles? Did the two of you have any hands-on experience with these sports you were simulating or did you glean everything from press/TV coverage of these events?

We didn't exactly have the power on a Spectrum to create particularly realistic simulations so any research we did was more of an excuse to do something cool rather than valid research for a game! ;-) We got the idea for Pro Ski Simulator after coming back from a skiing holiday and Jet Ski Simulator came up around the time a bunch of us used to jet ski regularly so it was more like our hobbies inspiring ideas for games rather than the other way round.

Many companies and individual programmers have given their kind permission for their titles to be made freely available for download on the World of Spectrum web site (www.worldofspectrum.org). Codemasters however are one

Below: The new look Dizzy does the slow motion run away from big explosion thing - with added Shrek/Indiana Jones bridge.





company that have denied distribution rights to all of their titles, meaning that although these are listed in the archive there are no download links. What are your views on this? Do you think Codemasters are being over-protective on a collection of what is very old software for a machine hasn't been in production for almost 15 years? Surely the Codies aren't considering bringing titles such as 'Super Robin Hood' and 'Advanced Pinball Simulator' out for the PS2, Gamecube etc. and as such, need to protect these 'valuable' properties.

Codemasters have every legal right to stop people duplicating and distributing games that they own. Even though they obviously won't make any money from any of them any more we would guess that it's more of a legal principle about pirating games that they're enforcing. Piracy is currently a huge problem in the industry and Codemasters are quite active in trying to prevent it so it would be hypocritical of them to complain about piracy on the one hand and then allow it on the other.

Many would agree that emulation of vintage computer platforms is a wonderful way of keeping the spirit of a now defunct machine alive. However, there's nothing quite like loading-up and playing a game on the original hardware. Do you ever dust off your Speccies for the odd blast here and there, or have they now been firmly resigned to the loft?

We'd love to but to be honest we both have young families now and very demanding jobs so it's hard to find the time to play all the excellent new games out there, never mind time to crawl around the loft and drag out the old stuff.

After many years of producing games for Codemasters could you tell us briefly why your

partnership with the Darlings finally came to an end?

That's all water under the bridge now. We were all young and wanting to move onwards and upwards to better things and we realised that we could achieve more in the future if we broke away and did our own thing. They gave us a great break and in return we gave them some top-selling games that helped establish their company so we all gained from the experience.



The two of you are now enjoying continued success as Blitz Games, with a combination of licenses (Barbie, Frogger, Chicken Run etc) and original titles (Glover, Fuzion Frenzy, Zapper). What are your plans for the next year to 18 months?

We'll continue to mix licensed games with original ones but it gets harder and harder to get publishers to actually buy an original product because it's much higher risk than working with a proven license. This Christmas we're releasing Fairly OddParents (based on the Nickelodeon TV show) in the US and Barbie Horse Adventures in the US and Europe.

Coming in the spring we've got Bad Boys II (based on this summer's blockbuster movie starring Will Smith and Martin Lawrence) then later in the year we've got a lot of other great games coming that I'm afraid we can't announce just yet.

Finally, with the experience of hindsight, is there anything you would have changed or have done differently during your early years as programmers knowing what you do now?

Probably the toughest lessons we've learnt revolve around employing people. In the early days we just hired our mates and while that sounds great it doesn't always do great things for a friendship when you have to start telling people what to do. (Having said that, many of those early staff are still with us now!) When it comes to business we obviously made mistakes along the way like every fledgling business does – the real trick to success is making sure you learn from them and also making sure you turn to the right people to get the advice you need for the future. Even mistakes are always valid if you take away the right lesson. No regrets!

A big thank you to yolkfolk.com, comp.sys.sinclair, and the rlmuk.com forumites for supplying a number of the questions that appeared in this article. Special thanks go to Theo White, Natalie Griffith, and of course, Philip and Andrew Oliver, without whom this article would not have been possible.

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THE SHAW BROTHERS

The Oliver Twins weren't the only sibling Spectrum coders! With over 40 titles listed at WoS, the **Shaw Brothers** made an enormous contribution to Spectrum software - one which continues to this day with the recent release of **Hop 'n' Chop** under the Cronosoft label. Keen to learn more, **Kevin Bennett** struck up a conversation with Graham Shaw and presents here some rather exciting news...

I emailed the Shaw brothers and had a conversation with Graham Shaw. Initially he offered some comments about their new work, additional questions and answers were added...

Did your friends believe you to be an ancient throw back of distant ancestry after hours of late night fingernail chewing/ coffee drinking and of course ending up floating in beer?

What friends? People who owned Spectrums never had any friends :) ...well apart from other Spectrum owners to "trade" games with. There were plenty of late nights though. Mostly working well into the morning.

Will there be more arcade action games from The Shaw Brothers with Hop 'n' chop being a recent success and excellent back catalogue games as Superkid in Space and Moontorc?

Most of our games have been arcade action games. I am hoping to set my Spectrum 48k up again next year and to begin writing a new Shaw Brothers Spectrum game. That's if I can find one of our old Designer programs - I wrote one for each new game. The package featured a Screen Designer, Graphics Designer and a Sprite Designer. The memory

available for the landscapes had to be kept to a minimum, so I worked a way to chop down the memory.

For instance in our game Moontorc (which took us 37 days to write) each screen is made of 40 bytes which point towards which graphics to display and their location. So if I can locate one of our old Designers and then work out how I did the rest then who knows!

We have also written management-type programs in between. The reason behind this was that I actually preferred to play these type of games, although they took longer to write.

It has been a long time since CRL's Formula 1 (approximately 20 years) really got the simple combination of elements in a management game, a classic I still play. What management games could you describe as influences, or you really liked to play?

Yeah I/we also spent many an hour playing Formula 1. Other similar style games I spent (too much) time on included Viking Raiders, Zulu Wars, Johnny Reb II, Software Star, Millionaire, On The Bench, The Biz etc. I don't know if I could describe the good ones as influences. The terrible ones would have been more of an influence. me thinking "hey if these can get published then why don't I write one" - sort of the Why

Don't You ethic.

Shaw Brothers programmed the following management type games.

These games included Soccer Star (Cult/D&H), Striker Manager (Cult/D&H), Motorcycle 500 (Cult/D&H), League Football - with Vincent Vity (Cult/D&H) and Grand Prix Challenge (Challenge Software). Most of them were written in Spectrum BASIC, which was the easiest way of including the many options and information required.

[www.worldofspectrum.org/infoseekpub.cgi?regex=^Shaw+Brothers\\$](http://www.worldofspectrum.org/infoseekpub.cgi?regex=^Shaw+Brothers$)

I began writing what became Football Glory on the 14th of October in 1991 and completed it on the 18th of January 1992. It took around 97 days in total, which included game-testing. Early working titles for the game included Competition Soccer League, 32 Player Soccer Challenge, Competition Football and Day Of The Match.

The aim was to have a multi-player football management game that was controlled by using a joystick or redefinable keyboard. The managers would be able to select "icons" using the controls.

There are 32 teams (2 divisions of 16), and a FA Cup competition. All managers can be either computer or human. The computer teams would have their own skill levels. The league choice would be



England or Scotland. The computer-controlled teams within the game would have to manage their teams just as the human-controlled ones. All the football players within the teams would have a number of characteristics. There are 512 players in the game's database. At the end of each week all the managers manage their teams and all the players have their characteristics updated, depending on how they played during that week. This takes a little time for the Spectrum to work out, but it also removes the "random" element of results that happened in a lot of earlier football management games.

Is there a life span to the players in terms of increasing abilities with experience and training? Does this flexible element have a game end in terms of outcome?

The players' have characteristics. These include: Actual Skill, Game Skill, Types, Match Bookings, Disciplinary Points, Fitness, Injury, Age and Goals Scored. Players can receive coaching. I wanted some kind of interactive feel to the game so I added a telephone icon. People would contact you including managers from another team, and you may ring them to make offers on their players.

With the possibility of many people playing together that function could make for an interesting social element. How about a promotion with beer vouchers :o) ?

It would be more of a social experiment. If you could find another 31 willing people to play the game with. Considering the amount of time this would take between turns the beer vouchers would come in handy... and maybe a few food parcels.

It will be very interesting to see what kind of play simulation is offered to have a visual element of the unfolding of the different

game characteristics. Was this a specific concern of the game design?

I have designed the results service to be as realistic as possible. The outcome of the games is weighted heavily towards players characteristics and game tactics. The game itself can be seen as a text match commentary or a direct result service. By selecting the "In Directors Box" option the game is shown on the results service. By selecting the "Stand In Dug-Out" option the game is shown in a full match commentary. During this commentary the scrolling can be toggled between normal and fast. If the ball goes out of play or during half-time, then you will be able to bring on a substitute and change game-play tactics.

At the end of the season the promotion and relegations are calculated and Manager Of The Year, Player Of The Year (Top Scorers Table) awards presented. During which you will be able to select more options including Ground Development and taking your team to the Specialist Physio.

Excellent extra game characteristics to add that real world to the game, do you get to demote to mowing the grass?

Maybe I should have added that option. Or included a Lawn-mower Simulator. Maybe that could be part of the new arcade-action game?

© 2003 Kevin Bennet; Graham Shaw

Football Glory is now available from www.cronosoft.co.uk priced £2.99

Dizzy wasn't born an egg.

It may be that he was simply a face on legs, the easiest character to draw. It may be that the oval shape was simple to animate, leading to the trademark Dizzy somersault. At any rate, his Yolkfolk pals were only mentioned in the second game, Treasure Island Dizzy, and didn't actually appear on screen until the game after that.

Dizzy, the eponymous original, was released in 1988 and billed as "the ultimate cartoon adventure" - and it was! The game boasted a varied landscape and plenty of object-based puzzles to solve. There were crystal mountains, underground mines, and a haunted graveyard, all peppered with obscure hint scrolls to set the player thinking.

The sequel, Treasure Island Dizzy, improved the formula. This time, Dizzy could carry several objects at once. There were hidden coins to collect and other characters to interact with. Locating a snorkel meant that Dizzy could go underwater and explore a whole new world of sunken ships and hostile marine life.

Treasure Island Dizzy remained in the software charts for over two years, selling more than 250,000 copies. It was a little game with a big smile, and it helped to confirm the place of Codemasters (then two words, 'Code Masters') as the big shots of budget software: a sort of upmarket Mastertronic with some kind of quality control between inbox and production line.

The arcade games are worth a passing mention. Fast Food was a fun snack-themed maze game with some nice touches. Kwik Snax, its sequel, was a Pengo clone. Bubble Dizzy had the egg jumping between rising bubbles, Panic Dizzy was an uninspired shape-matching puzzler, and Dizzy Down the Rapids was a slow and tiresome shoot-



He's cute, he's colourful, and he makes you think - so how come some Spectrum lovers can't stand him? Continuing our Oliver Twins' theme, **Paul E. Collins** asks:

What's wrong with Dizzy?

'em'-up. With the exception of Fast Food, these games were dull and did little for Dizzy's reputation.

In 1989, Fantasy World Dizzy was released on multiple formats. As expected, it was bigger and better, with more animated graphics and a jolly in-game tune on 128K machines. We were introduced to the Yolkfolk, a small community of eggy characters. Dylan, Denzil, Dozy and the rest had their own individual foibles and - in retrospect - were somewhat comparable to the seven dwarfs.

Fantasy World Dizzy was always my favourite game in the series, perhaps because it was the first Dizzy game I played. Be that as it may, there's an interesting fact about Fantasy World Dizzy, which is that no subsequent Dizzy game really exceeded it in terms of technical accomplishment (at least on the Spectrum). The graphics didn't get better after Fantasy World. The plots didn't gain complexity. The music kept to the same Dizzy rule: one bouncy ditty on the title screen and one during the game. In fact, after Fantasy World, *all of the Dizzy games looked and felt the same*.

This point is crucial. Fantasy World was the third Dizzy adventure game, but how many were released altogether? The answer is phenomenal: seven, not including the five arcade games and three magazine demo versions. This doesn't sound too remarkable in the era of Tekken and the Pokémon franchise, but in those early years Dizzy was considered very prolific indeed.

Codemasters were a fertile bunch

themselves. I've mentioned quality control: unlike other budget houses, they had stringent standards and refused to put out poorly presented software. But, while most of their games looked good and played well, there was rarely anything innovative under the graphical gloss. There were exceptions, like the brilliant music business parody Rock Star Ate My Hamster, but they were few and far between.

CJ's Elephant Antics and CJ in the USA were colourful platform games. Big Nose was a colourful platform game. Tarzan Goes Ape was a colourful platform game. The short-lived Seymour range was - gallingly - a copy of Dizzy, with the exception of Stuntman Seymour, which was a colourful platform game.

Meanwhile, Codemasters' Simulator range packaged diverse sports and hobbies in the same attractive shell, from BMX biking and skiing to tennis and pub trivia. Pro Boxing Simulator was a re-release of an earlier boxing game, By Fair Means or Foul. The Simulator brand was occasionally used for games that didn't really simulate anything, as when a collection of football games (without any particular focus on realism) were bundled as 4 Soccer Simulators.

Ironically, Crash's 1992 interview with the Oliver twins included the following exchange.

Crash: How important is Dizzy to you?

Phil: Very important. It was just what we were aiming to achieve - to change the market from simulators to cartoon adventure

games in which the player decides what happens next.

Andy: It's also more creative than taking an idea from a film or sport.

The friendly egg became a mascot for everything cheap and cheerful. The games kept coming, and consumers and reviewers lapped them up. Dizzy reviews were by now filled with egg puns. Even the games got their share, the worst being a line about "teaching your grandmother to suck eggs" when Zaks' vampire ancestor caught the hero in Magicland Dizzy. (The Codemasters employee who called Dizzy's second compilation Dizzy's Excellent Adventures - with an x - should be commended on his self-restraint!)

Spellbound Dizzy, which many fans regard as the best in the series, used the full 128K of memory. Despite the larger map, new characters, and visual tweaks - Dizzy went through new animations when eating fruit or swimming with flippers - the game was disappointingly samey. Scrolls with in jokes practically highlighted the fact that Dizzy had become self-referential and formulaic.

Not only was there no real progress after Fantasy World, there was a regression. Crystal Kingdom Dizzy was an insult. Less colourful in places than the first Dizzy game, and riddled with barren locations and weak puzzles, it was contracted to another company and evidently rushed out. Dizzy didn't even roll properly!

Crystal Kingdom marked Dizzy's end on the Spectrum, and (with the commercial death of the Spectrum) perhaps his end



altogether. A bastardised Dizzy Prince of the Yolkfolk made an appearance on Nintendo's NES console as Dizzy the Adventurer, and the Sega Megadrive got Fantastic Dizzy, a commendable 16-bit update with subgames and beautiful graphics (but regrettably based on puzzles from the earlier games).

Beyond that, nothing.

Had reviewers enthused about Dizzy to the bitter end? Well, yes, more or less. Linda Barker (Your Sinclair) adored Spellbound Dizzy, calling it "big, bold and beautiful". Jon Pillar thought otherwise, as illustrated by a brief 'Dizzy debate' published in YS in 1992. (AP is Adam Peters of Amstrad Action.)

JP: *[Kids] like [Dizzy games] cos they're fluffy and innocuous, like some pop songs. The fact that they're best-sellers doesn't mean they're any good at all.*

AP: *But people aren't going to buy games which they think are crap. You might think they're crap but the people who are buying them obviously don't. You're just taking the high intellectual ground. Dizzy games are among the best games coming out at the minute. And they make money. We are living in a material world.*

JP: *But when the Codies put some thought into things, they can come up with something like Steg. Dizzy is just an easy way out.*

Steg was a curious strategic puzzle game which had you blowing bubbles in an attempt to guide baby slugs to safety. While not mind-blowingly original - it was almost certainly inspired by Lemmings, released the previous year - Steg was certainly a new direction for Codemasters. Favourable reviews of Steg demonstrated that games that were different could succeed.

With the recent appeal of retro gaming and the comeback of

characters like Sabreman and Donkey Kong, could Dizzy have a future? It's hard to say. There's a small but persistent fan base on the Web, with sites offering Dizzy downloads, fonts, and even a petition to bring the egg back. There are fan-made games: hacked versions of genuine Dizzy games and new PC adventures cobbled together by younger enthusiasts.

If somebody wants to resurrect Dizzy commercially, however, there are legal obstacles. The Oliver twins are now in charge of their own games company, Blitz Interactive, and have given a few interviews to Dizzy fan sites. Codemasters owns the Dizzy character, however, and has no immediate plans to do anything with it. (They're still churning out car simulators, mind.)

So what's wrong with Dizzy? There was nothing terribly bad about the games. They were cute, colourful, and user-friendly, with varied locations and tunes you could hum. Why, then, does Dizzy inspire such revulsion on comp.sys.sinclair, the newsgroup dealing with the very home computer on which he shone?

For Spectrum users, particularly the older ones, Dizzy represents

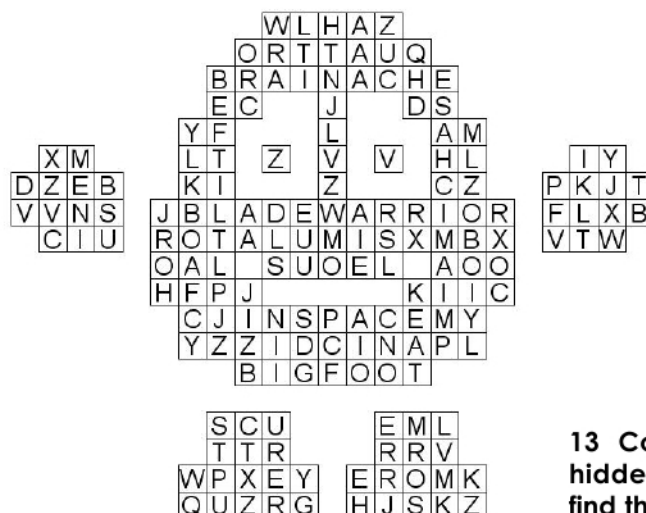
homogeneity. Games in the early eighties were often home-grown in teenagers' bedrooms. By 2000, they were being designed and shrink-wrapped by corporations. Somewhere in the middle came Dizzy, and with his string of similar hits he can easily be regarded as a figurehead for the standardisation of modern games.

We hate Dizzy for the same reason we hate Big Brother: both are ubiquitous and repetitive. The problem is not the original concept but the lack of development. So, like Britney Spears being trashed for her latest bubblegum album, the celebrity egg is held accountable for the greed and cynicism of the industry. The product is a scapegoat for the producer.

The blame must fall on the software companies - and there were far worse culprits than Codemasters and (bedroom programmers themselves) the Oliver twins - that squeezed out innovation by releasing nothing but the sparkingly predictable: streams of good bad games. There's no need to malign poor Dizzy.

After all, he's a shell of his former self.

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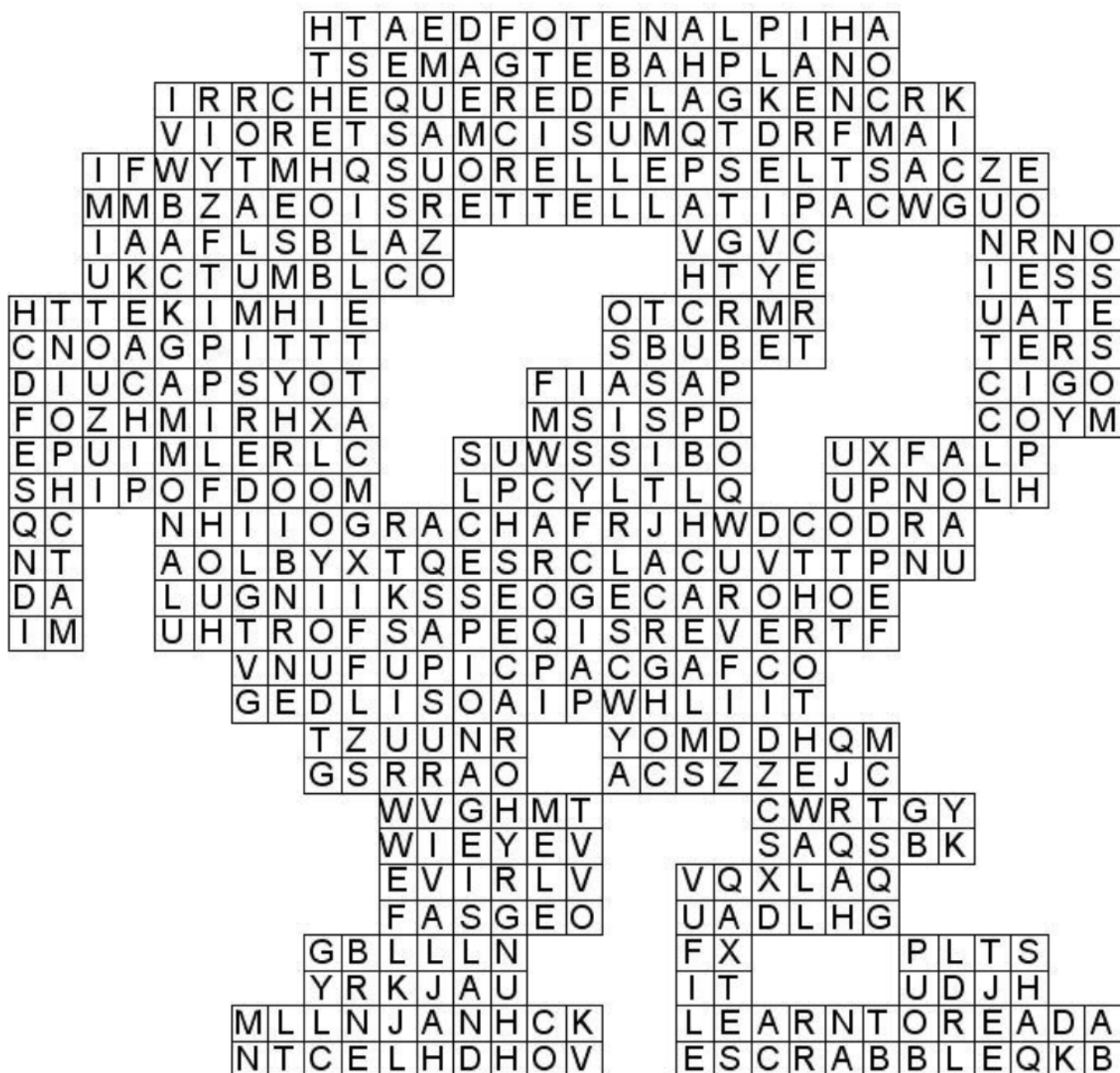


13 Codemasters games hidden here - can you find them? Canyuh?



software by sinclair

40 Sinclair titles to find about Horace's person. Lawks!





THE BIG ZX CROSSWORD

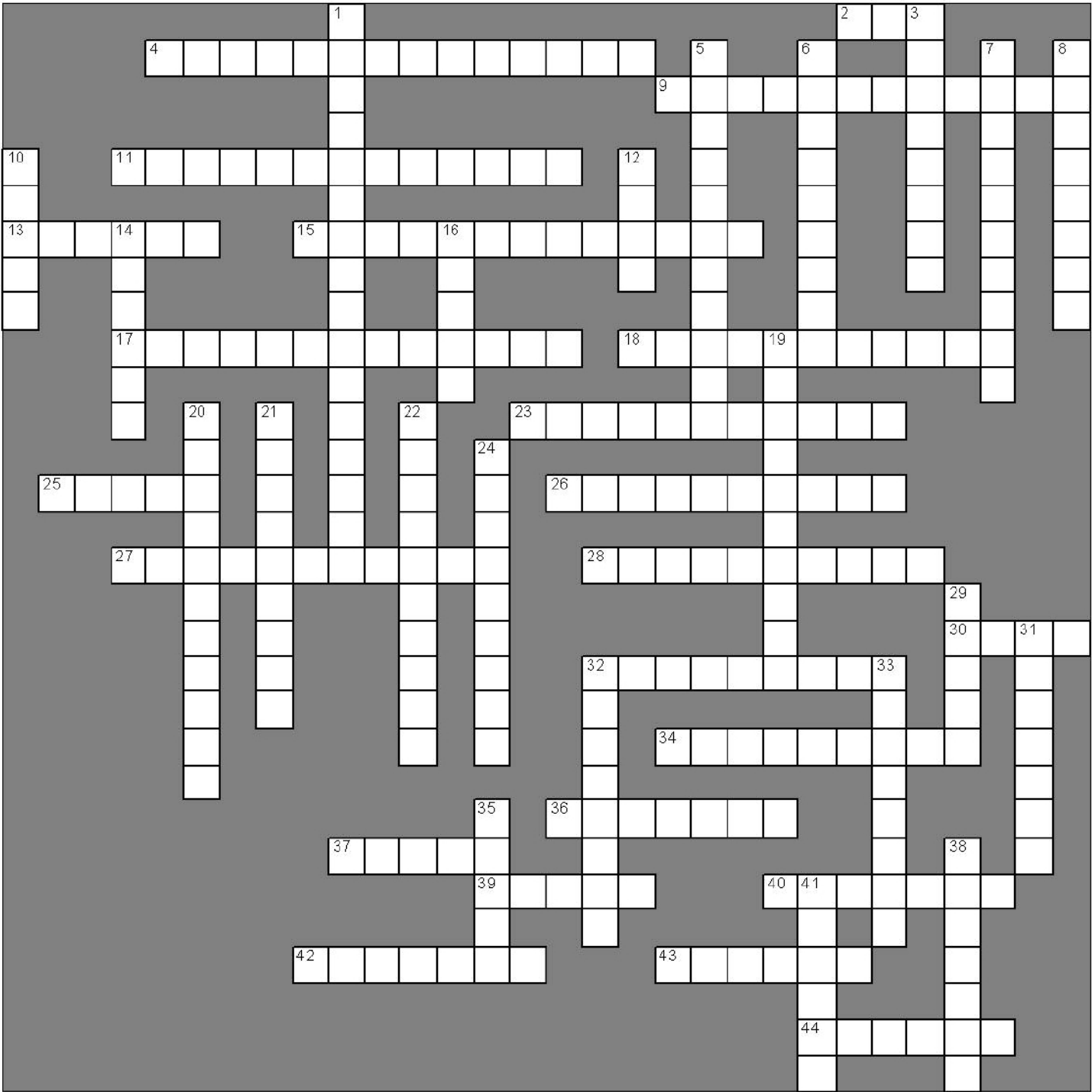
Stuffed too full of turkey? Unable to move from the settee? Put that remote down and start hunting down ZX solutions...

ACROSS

2. Where would we be without it? (3)
4. Ozzie publisher (9,5)
9. £1.99 range (12)
11. Co-author of original manual with Steven Vickers (5,8)
13. At the last second, that ROM cartridge is snatched from under your nose. Sorry pal, you've been _____. (6)
15. Top emulator from Jonathan Needle (13)
17. Hewson's star programmer (Cyberoid, Exolon, etc) (8,5)
18. Ultimate intention (4,3,4)
23. Latest official Spectrum? (7,4)
25. A Sinclair software partner, later got organised (5)
26. Codemasters published lots of these (10)
27. Colours two and three of the four (6,5)
28. Sandy white scored hit with this company (10)
30. Overused ebay adjective (4)
32. Cuchulainn's second outing (3,6)
34. 3-D technique by Incentive (9)
36. PAW publisher (7)
37. Justice, served Cronosoft style (5)
39. According to the AY Riders, you are this (5)
40. Mystic Spectrum loading aura (7)
42. Sami Vehmaa's IDE range (7)
43. How a 48K Spectrum accesses 128K (6)
44. Highest address used by ZX BASIC (6)

DOWN

1. YS Publisher at the end (6,10)
3. The ubiquitous Sinclair title (8)
5. The best place for bargains (3,4,4)
6. Affectionate term for what the rubber keys feel like (4,5)
7. When he's not extending BASIC, he's travelling the world (and logging in just often enough that we don't forget it) (6,4)
8. Russian clone with a sting in its tail (8)
10. Beginners All purpose... you know the rest (5)
12. The J word (4)
14. Jetman thought they had made him their king (6)
16. Sinclair's American partner (5)
19. Option five, which Amstrad abandoned (4,6)
20. The answer to all your (initial) questions (11)
21. Keyboard that shunned publicity (2,7)
22. CRASH artist (6,4)
24. Final SU editor (4,5)
29. The D in Sinclair's new WDU (5)
31. Authors of RealX (7)
32. MGT's answer to the Interface 1 (8)
33. The 128 was "two computers in one," but this feature made it a domestic heating appliance too (4,4)
35. Quite a good wizard game, apparently (5)
38. Bending light to thwart tape-to-tape mischief (7)
41. Before he went skiing, he was... (6)





Solutions

Look away if you don't want the fun spoiled...

CROSSWORD				SOFTWARE BY SINCLAIR			
ACROSS		DOWN					
2. WOS	1. FUTURE PUBLISHING	3. SCRAMBLE	1. FUTURE PUBLISHING	ALPHABETGAMES	MAGNETS	MAKEACHIP	MATCHPOINT
11. ROBIN BRADBEER	6. DEAD FLESH	7. ANDREW OWEN	8. SCORPION	CARGO	MUSICMASTER	PLANETOFDEATH	PLANETOIDS
9. MASTERTRONIC	5. CAR BOOT SALE	10. BASIC	12. LOAD	CASTLESPELLERIOUS	REVERSI	SHIPOFDOOM	SPACERAIDERS
4. MELBOURNE HOUSE	3. SCRAMBLE	14. PLURPS	16. TIMEX	EMBASSYASSAULT	SCRAMBLE	SHIPOFDOOM	SPACERAIDERS
26. SIMULATORS	19. TAPE TESTER	20. SINCLAIRFAQ	21. LO PROFILE	ERICANDTHEFLOATERS	SURVIVAL	THEHOBBIT	THROTHEWALL
30. RARE	22. OLIVER FREY	24. ALAN DYKES	29. DRIVE	FLIPPIT	VUCALC	VUFLE	ZIPPERFLIPPER
32. DUN DARACH	31. RAMSOFT	32. DISCIPLE	33. HEAT SINK	GLIDERSIMULATOR	GAMES	GLIDERSIMULATOR	HORACEGOESSKIING
37. ROUGH	35. CHAOS	38. LENSLOK	41. HUNGRY	HORIZONS	INCACURSE	LEARNTOREAD	
40. CHUNTER	42. ZXATASP						
43. PAGING							
44. RAMTOP							
CODIES WORDSEARCH							
BIGFOOT	BRAINACHE	CJINSPACE	DIZZY	MIAMICHASE	QUATTRO	PANICDIZZY	TILT
BLADEWARRIOR							
BMXSIMULATOR							



1,697 minus 2

ZXF at long last does something useful and stumbles across a couple of *Missing In Action* Spectrum titles at the local car boot...

This has been an exasperating year of car boot sales. Week after week after week I've trawled through endless collections of James Last LPs, McDonalds Happy Meal toys and empty CD racks only to emerge empty handed each and every time. Last year I took home a Plus 2, a Plus 2A and a tired, but working Spectrum+, not to mention a whole load of books, cassettes and joysticks; this year the ZX Spectrum and all its associated bits and pieces has been noticeable only by its absence in the fried onion-smelling field of bargain hunters that is my weekly sunday morning haunt.

Until a sunny October morning several weeks ago, when a mint condition Plus 3 smiled up at me from below a wallpaper table; it was a bargain at £15, but with only a tenner in my pocket I had to rush off to rustle up the extra cash and by the time I got back... well, you can probably work out the rest (whoever you are, you were jolly lucky).

I very nearly didn't go the week after - well we were well into autumn and the season couldn't last forever; the Plus 3 had been my one and only chance and I had blown it, or so I reasoned. But just like buses, boot sale bargains have that tendency of keeping you waiting for ages and then turning up several at once. And so it was that a rather motley bunch of cassettes caught my eye during my stoic trek on the 12th. Looking for Sinclair branded tapes (my favourite collectable), it was a ZX81 copy of **Space Raiders** that sounded the alarm somewhere

UPLOAD IDENTIFICATION FORM	
<p>If you just uploaded a software file, please take the time to fill out this form. It will help us identify what we receive, something that greatly saves time.</p> <p>As you can see, attaching your upload here is also possible if you haven't uploaded it yet. However, we urge you not to attach files larger than 1Mb. Please use the normal FTP facility for such large files. (server 'ftp.worldofspectrum.org', directory '/pub/sinclair/incoming')</p> <p>Also, there's no need to upload material you found on The TZX Vault or SPA2. Since we're partners, we already exchange these!</p> <p>Important Type-ins should not be uploaded to WoS, as this project is maintained externally. Please use this page instead for type-ins!</p>	
<p>Please enter the title of the game you're submitting and press the "Search" button. This will report all cassette inlay scans we have. If the inlay of your game matches any of the inlays you find, please copy and paste the full path below ("Cassette inlay path").</p> <p>Cassette inlay finder <input type="text"/> <input type="button" value="Search"/></p> <p>If the inlay is not in the archive yet, please consider scanning and uploading it as well.</p>	
<p>If you are uploading a game you wrote and/or hold the copyright to, please think about giving us formal permission to freely distribute it.</p>	
<p>Your name (for the credits list)</p> <p>Your e-mail address *</p> <p>If already uploaded: Filename</p> <p>Otherwise: Attach</p>	<p><input type="text" value="Colin Woodcock"/></p> <p><input type="text" value="colin@woodcock.co.uk"/></p> <p><input type="text"/></p> <p>X Spectrum Files\MA resolved by ZXF\Bell by Bell.txt <input type="button" value="Browse..."/></p>
<p>Cassette inlay path (see above)</p> <p>Full title</p> <p>Publisher</p> <p>Author(s)</p> <p>Year of release</p> <p>Message language</p> <p>Protection scheme</p> <p>Original price</p> <p>Genre</p> <p>Origin</p> <p>If re-release</p> <p>Original publisher</p>	<p><input type="text"/></p> <p><input type="text" value="Bell by Bell"/></p> <p><input type="text" value="Video Software Ltd"/></p> <p><input type="text" value="Philip Smith"/></p> <p><input type="text" value="1983"/></p> <p><input type="text" value="English"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text" value="Sports"/></p> <p><input type="text" value="Unknown"/></p> <p><input type="text"/></p> <p><input type="text"/></p> <p><input type="text"/></p>
<p>Additional comment</p>	<p><input type="text" value="Inlay to follow."/></p> <p><input type="button" value="Send"/></p> <p>(* Only necessary if you'd like us to get back to you!)</p>
<p align="center"> E-Mail Index </p>	

within my subconscious as I sped past the table. As I backed up for a closer look I noticed it was surrounded by a few Mastertronic and budget re-release titles.

Nothing special there. But then I spotted a two rather poorly designed inlay spines: quite clearly, on further examination, a couple of home-produced titles.

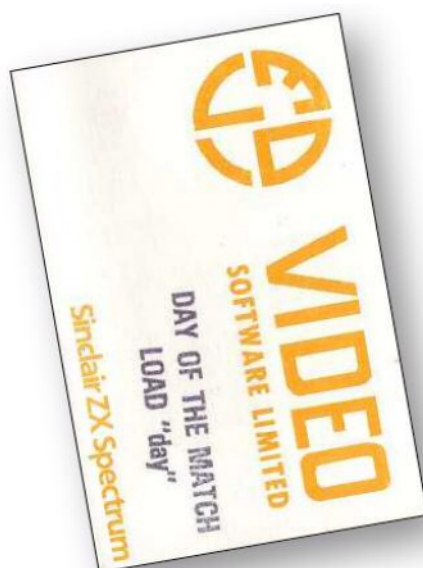


Day of the Match, then, and **Ball by Ball** were both releases from a company called **Video Software Limited**. And I started thinking. Could these be MIA tapes?

Well I've been in that spot many a time before. Oh yes. At the car boot sale (though not this year, like I said). In the charity shop. All excited, I race home with the cassette - an obscure title I've never heard of from a software house I've never heard of (it *must* be MIA!) - boot up the PC and head straight for the WoS archive... and what do I find? Not only is the tape there in all its perfect TZX glory, but there too is its inlay, the instructions, a link to its review in Crash, SU and YS, and the AY theme tune ripped for stand alone players. In short, everything. And yet another ZX title gets added to the box of tapes under my desk that I don't quite know what to do with.

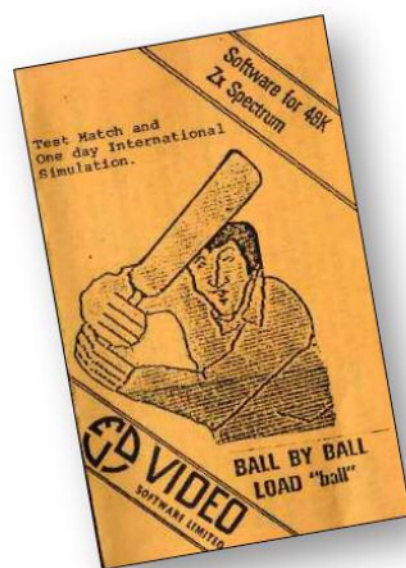
But this felt different. Call it intuition, call it precognition, call it more time than is healthy spent emersed in all this nonsense, but somehow I knew. And this time my search at WoS was rewarded. Missing In Action. Both of them. I cannot tell you just how chuffed I felt with myself. 1,697 titles were listed as known and missing, and I had just found two of them.

But the next bit I knew would be a problem. TZXing - the process of turning an honest-to-goodness plastic and rust cassette into a virtual tape file for an emulator - was something I had never managed to, erm, manage. **Taper** verily thumbed its nose at my PC's sound facilities (all on-board) and told me exactly where I could stick my Line In signal. And **MakeTZX**, Ramsoft's supposed thoroughbred converter ("MakeTZX now has an amazing feature that guarantees 100% failure-proof conversions even in the most difficult cases") simply sat and blinked a confused cursor at me as the Spectrum loading noises cruised on by. Everyone else could hear it as I



adjusted volume controls ever-upwards - my wife downstairs trying to watch TV; the neighbours; the cat from number 12 wondering what new tom had wandered into its territory - everyone but MakeTZX, that is. Loading tones? What loading tones?

Apparently I'm not the only one who has experienced such difficulties. TZXing has been likened somewhere - I forget now where I read this - to a black art, that some achieve with ridiculous ease whilst others never get close to even the faintest whiff of success. The really infuriating thing about it was that I could get tapes to load into **Spectaculator** via the Line In port no problem at all - same 3.5mm stereo socket, same on-board sound card, same mono jack cable and same Sony cassette player: into the emulator it all went without so much as a squeak of protest. But Spectaculator does not make TZX files, so whilst this was an excellent solution to the problem of preserving some of my old BASIC programs, it was no good whatsoever for preserving MIA titles, since the requirement is by WoS that TZXs submitted are exact copies of the original tapes in all aspects (for example, the lengths



of the silences between tones in the recording).

The MakeTZX documentation advises against sampling your Spectrum tape into a separate sound editor and then running the audio file that it produces through the MakeTZX decoder. Instead it recommends you sample and decode all at once in MakeTZX's 'DirectMode':

"If a conversion in DirectMode has failed, then it would have failed even if you had recorded the samples into a VOC with your favourite sampler. Besides, consider that a digitally filtered VOC is not always better than a normal one, because the digital filter itself may introduce nasty errors"

But I tried anyway, using **Soundprobe 2** (presumably pretty much any sampling program will do the job). And sure enough it didn't work. I tried sampling in mono. And sure enough it didn't work. I tried increasing the sample rate. And sure enough it didn't work. As a last ditch attempt I tried sampling in 8 bit mono as opposed to 16 bit...

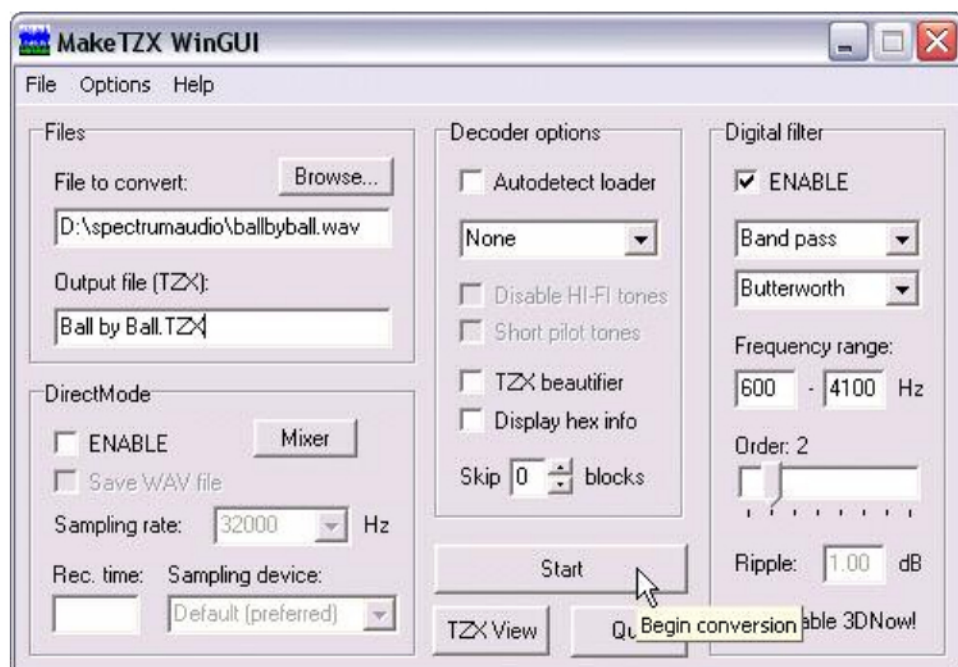
And guess what?

It worked. It worked perfectly. That was all that was needed in

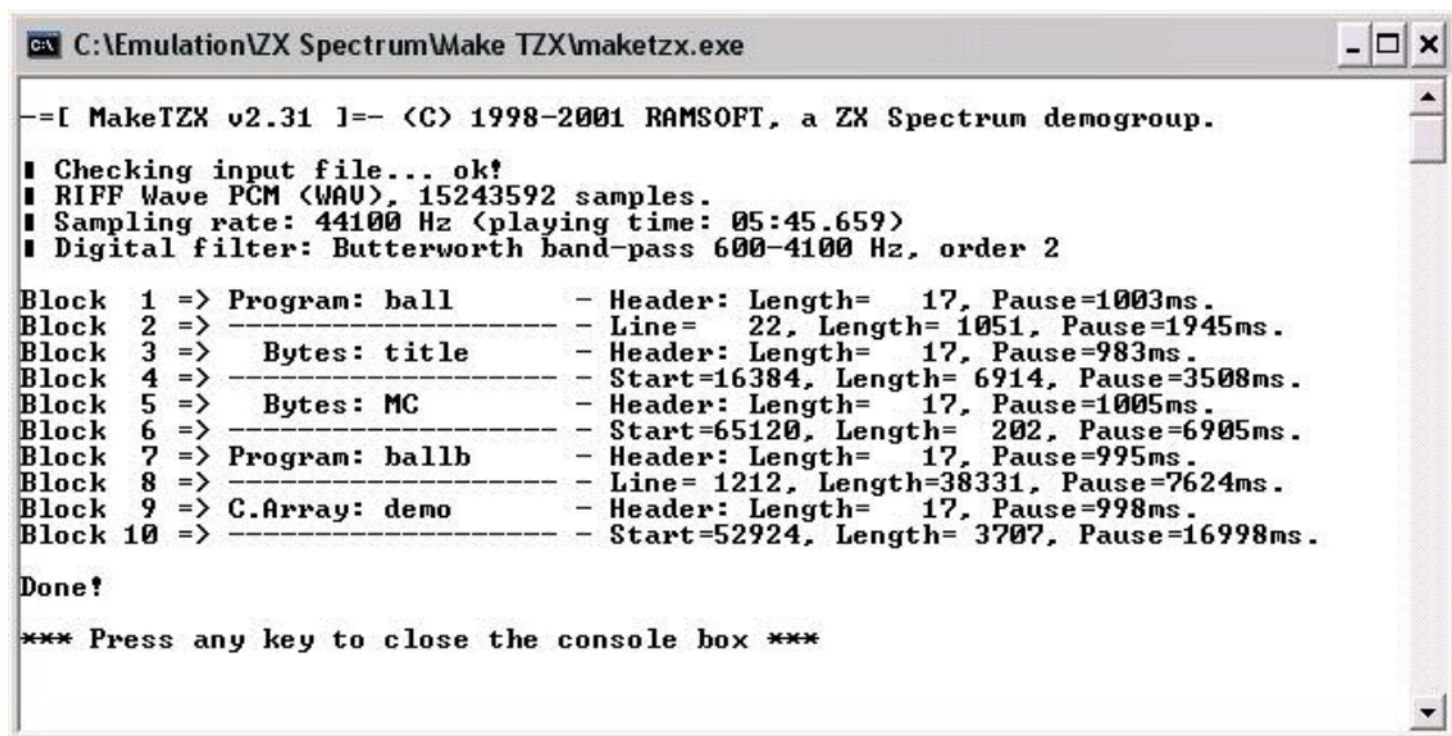
the end. But can you find it in instructions anywhere? Can you Adam. Sinclair FAQ, please take note.

So MakeTZX verily purred along now. No problem. No problem at all. Nosir. And I end up, therefore, with two lovely TZX files and a couple of inlay scans. Off to **WoS** then - to the uploads page at www.worldofspectrum.org/upload.html, to be precise, where I make my four submissions (the two TZX files and the two inlay scans; the next task will be to type in the - rather verbose - instructions, which will be a job for the Christmas hols), one at a time.

What happens next? Well, the inlay scans have appeared already in the archive, however



MakeTZX's WINGUI ready to go, with the digital filter enabled



MakeTZX's output once you click on that start button, complete and 'unbeautified'.

new TZX files take a while to be processed and are uploaded in batches rather than on a submission-by-submission basis. In a chance meeting with **ADJB** at the MicroMart fair in November he explained to me that submissions like this will need to be looked at

from a number of angles - such as whether they are needed in the TZX Vault, and so on. Quite a number of people are involved in this process, each with their own specific duties, so this is really only the start of the titles' voyage to WoS immortality.

So it's back to the sidelines for me. And back, incidentally, to car boots. On the following week I spotted a boxed 128+ with four bags of accessories. *How much?* I cried. *"Sorry mate - just sold it for a tenner. Nearly snatched my hand off, he did."* Did I mention buses?



TR-DOS

Whilst it's not made much of an impact in western lands, TR-DOS is about as closely associated with Russian Spectrum clones as tapes are here with the original machine. Time to have a look then...

TR-DOS is one of those pieces of Spectrum esoterica I've always promised myself I'll get around to learning about 'one day.' A bit like going on a diet or learning assembly language, however, days like this do not occur frequently. But so great has become my embarrassment at the blind eye I feel I've turned towards this immensley important disk system within five issue's worth of pages, I have at last gathered up my courage and ventured out onto the net to learn. And guess what - it's really not all that hard at all.

If you're not aware of what TR-DOS is, you might wonder why it's worth the bother. Even the most well known disk formats - the +3 format, the Plus D format, the ZX Microdrive (at a push) - were never anything like as well supported in software as cassette tape was, and now that we have flash loading options for .TAP and .TZX files on emulators, the whole disk thing seems a little pointless - unless you're into real hardware, of course.

Of course, many of the +3 releases were actually available also on cassette, so the main advantage of obtaining a version on disk - or snapshotting your tape versions to disk - was simply faster loading times. And this, let's be honest, is why most of us bought a disk system. Indeed, what better reason could there be?

Take a brief look at the WOS archive and you'll find that there are actually more TR-DOS disk

images listed there at the moment than there are +3 disk images. Unlike the +3 disks, however, these are not games you can also get hold of on tape or in tape files. That's 400 odd titles, and titles which won't necessarily load into your favourite emulator either. **ZX32** does not support TR-DOS, and neither do **vbSpec**, **SPIN** or **Spectaculator** at the moment, to name just a few.

The TR-DOS format is also very popular within the demo scene, over 350 titles being listed at **Demotopia** (www.zxdemo.org) at present. You'll also find TR-DOS downloads at such sites as **Power of Sound** (www.pos.fmshop.ru) and **Scenergy** (scenergy.natm.ru), including games and disk-based magazines such as **Adventurer**. And there are literally thousands of TR-DOS downloads at **Virtual TR-DOS** (<http://trd.speccy.cz>).

Basically a whole new dimension to Spectrum computing, then. And quite a refreshing one too, because the ideas and presentation in these programs are often quite different from that of the western software with which we are familiar.

TR-DOS, then, is the input system of choice of the vast majority of Russian Spectrum clones - of which there are many. In case you're unaware, these machines came about as a result of two main factors - price (an original Spectrum would have cost several years' salary in Russia) and the technology export controls of the Cold War. A few Spectrums got

across the Iron Curtain and then got reverse engineered so functionally equivalent (but cheaper) machines could be built. The results were rarely visually attractive (many of the clones were produced as designs rather than actual computers you could buy off the shelf, so it was up to you what your completed **Pentagon** looked like, for example), but - rather ironically - often more powerful than the original Spectrum, particularly in terms of memory and storage features. One such feature was the **BETA Disk Interface** developed by **Technology Research Ltd**. An English company (based in Middlesex), Technology Research released the interface over here for a pricey £109 in 1985 (this was just for the interface - disk drives you had to buy seperately). It was not a great success over here, but in Russia the interface (or rather - I presume - a clone of the interface) actually got built in to a number of Spectrum clones, making the floppy disk a much more common form of program storage for the Spectrum than it ever became over here.

So the TR in TR-DOS stands for Technology Research. Easy, see? The operating system itself was stored in the interface's ROM and went through a number of versions, the most recent of which seems to be 6.04.

TR-DOS files come in two formats, both of which can be read by the emulators which do handle TR-DOS (the two I use for this are

RealSpectrum and **Unreal Speccy**): TRD and SCL. .TRD files are dumps of a whole disk image - empty spaces and all - whilst .SCL files are only as big as the actual TR-DOS files they contain (although they still work just the same as regular disk images). The regular capacity of a .TRD file seems to be 640K (equating to a double sided, double density 3.5 inch floppy, although in fact the original Beta Disk interface was designed to be used with a range of drives, including 3 inch and 5.25 inch), so a .TRD file containing a 10K Spectrum program would still be 640K in size, whilst its .SCL equivalent would be just 10K.

Grab yourself a few TR-DOS disk images, save them into the directory of whichever emulator you're going to use and fire it up. For **RealSpectrum**, TR-DOS is

handled no differently than any of the other many formats dealt with by this emulator, but you will need to select, of course, one of the Russian clones for emulation. So hit F3 for hardware configuration and select Pentagon 128K, then press TAB for the Peripherals box below and scroll through the various disc interfaces and operating systems until you get to *Beta 128* and *TR-DOS*. When you now hit ENTER you'll see a new variant on the traditional 128 menu: in the place of the original 'Tape Tester' we now have a TR-DOS option. Scroll down, hit ENTER and you are now at the main TR-DOS command line. Before you start typing, make sure you've first loaded in a disk image (F6 to bring up the Disc Panel, then select a drive - you get four to



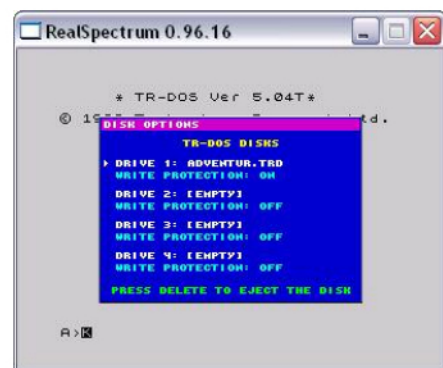
RealSpectrum: hit F3 to select your hardware.



An emulated Pentagon. Scroll down to the TR-DOS option.



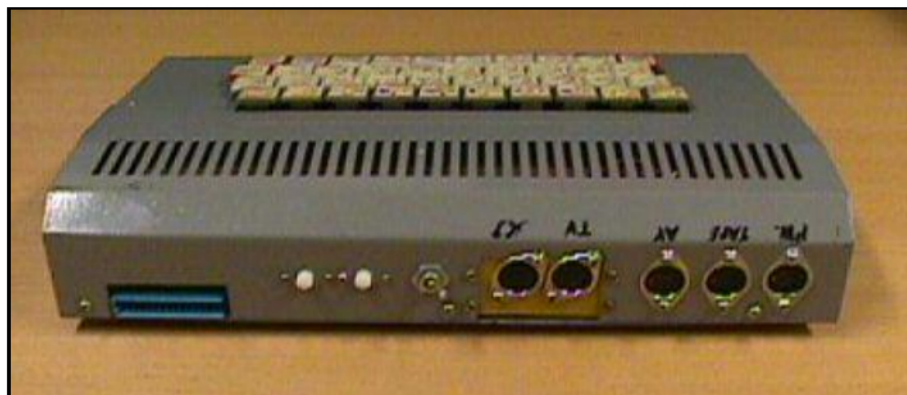
The TR-DOS command line.



F6 on RealSpectrum brings up the Disc panel: choose your disc file from here.



A Pentagon machine. The Pentagon was a design rather than a commercially available computer, so each individual computer had its own unique look. Note below the disk drive connector that was a standard feature. Images kindly supplied by www.interface1.net/zx/



choose from - and hit ENTER to start browsing your disk files). To get back to Sinclair Basic from the TR-DOS command line, all that's needed is a RETURN command. The single keypress 'tokens' work here, just like 48K mode - even though this is a 128K machine being emulated - therefore the Y key is the one we need here.

So then; the OS commands. This is where the nice surprise comes for someone who thought this was all going to be terribly complicated: the commands are actually very straight forward. We can start with a CAT command to find out what's on our disk, which is a SYMBOL SHIFT + 9 in extended mode (in Real Spectrum, SYMBOL SHIFT equates to the Ctrl key and extended mode is obtained by pressing Ctrl and Shift together). CAT clears the screen and prints up the title of the disk and the number of files it contains, as well as details of the individual files themselves (CAT by itself assumes you are referring to the first drive, if you're using more than one; to look at the contents of other drives, it has to be suffixed with "b:", "c:" or "d:" - that's including the quotation marks). Selecting a particular file for loading is then a simple matter of LOAD "filename" - exactly as though you are dealing with a tape (compare this with Sinclair's own microdrive syntax: LOAD *"m";1;"filename"). This is pretty much how it goes for all the other commands you are used to for dealing with tape - SAVE, MERGE and VERIFY all work in the usual way - a main addition is the RUN command, which you can use with a filename to LOAD and then RUN that program all in one.

Many thanks to Matthew Westcott for his help with this article

TR-DOS Quick Reference

COMMAND	FUNCTION
*"a:"	set default to drive A
*"b:"	set default to drive B
*"c:"	set default to drive C
*"d:"	set default to drive D
40	inform TRDOS that default drive is 40 track
80	inform TRDOS that default drive is 80 track
CAT	display the disk directory
CAT#	print the disk directory
CLOSE#	closing a serial/random access file
COPY	copying files from one drive to another
COPY s	copying files in a single drive system
COPY b	backup disk in a single drive system
ERASE	delete a file from the disk
LIST	display details of disk contents
LIST#	print details of disk contents
LOAD	load a program from the disk
INPUT#	read from serial/random access file
MERGE	combine BASIC program from disk with one in RAM
MOVE	reorganise and pack together the files on a disk
NEW	change the existing name of a file
OPEN#	opening a stream for a serial/random access file
PEEK	read a sector of a file from disk to RAM
POKE	store data in RAM to a sector of a file
PRINT#	writing a serial/random access file
RETURN	return to BASIC from TRDOS
RUN	load and run a program from the disk
SAVE	save a program to the disk
VERIFY	verify a program saved on disk
RANDOMIZE USR 15616	go to TRDOS from BASIC
RANDOMIZE USR 15619	call TRDOS commands from BASIC

Source: Beta 128 Disk Interface - User manual

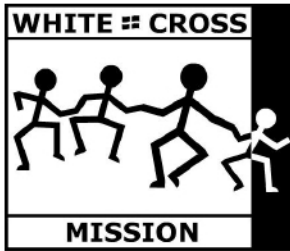


2004

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	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T														
JANUARY				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
FEBRUARY							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
MARCH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
APRIL				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
MAY						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
JUNE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							
JULY					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
AUGUST							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SEPTEMBER				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
OCTOBER						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
NOVEMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							
DECEMBER			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				

Spectrum computing today



After Ceaucescu's death in 1990 over 120,000 children were discovered living in grim institutions. In the county of Jud Bihor in Western Romania, children who had been assessed as 'mentally retarded' at the age of three were sent to an institution in the country village of Cadea. They were housed in old buildings that had broken windows and no heating or plumbing. It was dark and dirty and for the majority of the time the children were confined to their cots. Most of them were tied to the bars by strips of cloth tied tightly around their wrists and ankles.

The children were always dirty, hungry and cold - sixty to seventy died every winter. Their original 'retardation' was the result of early illnesses such as pneumonia and bronchitis, and years of confinement at Cadea only compounded the problem. When they were finally released in January 1991, many could neither walk nor speak. All of the children rocked backwards and forwards in their distress; their eyes were glazed and unseeing. On release, many of the children were sent to hospital buildings in the mountain villages of Remeti and Bratca. It is here that the White Cross started assisting the local Romanian staff in their care.

Since the White Cross has been working with the children, over 600 people have travelled with the Mission to Romania. Some have only been able to give a few days of concentrated work, most average two months and one stayed for four years! Some work with the children, others repair the buildings and yet others deliver goods. Every volunteer is special. They raise their own money for air and train fares, insurance, food and electricity and more than half of them do it all over again and go out for a second or even third time. Old or young, with or without qualifications, the combined work and presence of these many different people has had an amazing impact on the children.

Children with blank, unseeing eyes, rocking in a world of their own are now healthy, laughing and boisterous. The accumulative effect of the White Cross volunteers with their mixture of naivety and experience, their energy, their perseverance, their hopes, their dreams and their many different ways of showing love has created a rainbow effect of bouncy, confident and individual children.

Fundatia Crucea Alba has helped White Cross Mission with the legalities of purchasing small farms, employing assistants and moving children from the mental institutions in order to live a normal family village life. We intend that these farms will be the children's homes for as long as they need. All their lives if necessary.

Buying the farms is only the beginning of a lifetime commitment to those children we take out of State care. Without a regular financial safety net we would be irresponsible if we established too many homes. We do, however, believe that this is the only way forward and are desperate for substantial funding.

The White Cross Mission is a Charitable Trust Registered in England No 1021176

52, Gwel-an-nans, Probus, Cornwall, TR2 4ND, United Kingdom

Tel (+44) (0)1726 884344 Fax (+44) (0)1726 884345 Mob (+44) (0)7775700893

Email wcm@whitecross.org.uk

www.the-white-cross.ndirect.co.uk